Profile of Alberta's Adult Learning System: A Context for Discussion

January 2002

Alberta
LEARNING

For additional copies contact:

Business Policy and Analysis
Adult Learning Division
Alberta Learning
11th Floor, Commerce Place
Edmonton, Alberta
T5J 4L5
Telephone: (780) 415-4863
Fax: (780) 422-3688

To be connected toll-free call 310-0000

Table of Contents

Introduction 1
- Purpose of the Report 1
- The Importance of Alberta's Adult Learning System 2
- Overview of Alberta's Adult Learning System 3
  - Public Providers 4
  - Private Providers 4
  - Community-based Providers 5
  - Boards and Councils 6
- Key Events 7

Accessibility 8
- Overview 8
- Participation in Credit Programs at Publicly-funded Post-secondary Institutions 9
  - Enrolment Growth 9
  - Participation by Age 14
  - Part-time Versus Full-time Participation 16
  - Participation by Gender 18
  - Participation by Socio-Economic Status 19
  - Aboriginal Participation 20
  - International Participation 21
  - Infrastructure 21
- Participation in Adult Education and Training Activities 23
- Participation in Private Vocational Schools 24
- Key Points 25

Affordability 27
- Overview 27
- Total Societal Spending on Post-Secondary Education 27
- Funding Provided Directly to the Adult Learning System 29
  - Credit Programs Subject to the Tuition Fee Policy 29
  - Credit Programs Exempt from the Tuition Fee Policy 31
  - Community Programs 31
- Programs Funded Through Non-Government Sources 31
  - Off-campus and Third-party Contract Credit Programs 31
  - Non-credit Programs 32
- Funding Provided to Students 32
  - Total Student Financial Assistance 32
  - Student Debt 34
- Key Points 36

Responsiveness and Flexibility 37
- Overview 37
- Credit Programs at Publicly-funded Post-secondary Institutions 38
  - Completions 38
  - Labour Market Outcomes 41

Graduate, Public and Employer Satisfaction 44
Private Vocational School Labour Market Outcomes 45
Adult Education and Training Activities 46
Adult Literacy 47
Key Points 47

Innovation Through Research Excellence 49
Research Infrastructure 50
Sponsored Research 50
Provincial and Federal Government Funding 50
Total Sponsored Research Revenue 51
Revenue per Full-time Academic Staff Member 52
Revenue from Federal Granting Councils per Full-time Faculty Member 53
Supporting the Full Costs of Sponsored Research 54
Expenditures on Research and Development 54
Gross Domestic Expenditures on Research and Development 54
Higher Education Expenditures on Research and Development 56
Key Points 57

Conclusion 58

Appendix A – Summary Information 59

Appendix B – Tuition Fee Policy 62

Appendix C - Glossary 64

Introduction

Purpose of the Report

Adult learning contributes to Alberta's well being in ways that benefit the individual as well as society in general. Adult learning helps us realize our individual potential, improve our standard of living, develop our economy, increase our capability for good citizenship, and better understand the world in which we live.

This profile of Alberta's adult learning system draws together information from widely different sources for the period 1994-95 to 1999-00. The profile looks at Alberta's system relative to those in other jurisdictions in Canada and discusses emerging trends and issues. Together with the companion discussion paper *Alberta's Post-secondary Education System: Developing the Blueprint for Change*, this profile provides a context for discussing policy and program directions to help improve Alberta's post-secondary education system.

The profile is presented in relation to four key outcomes that support Alberta Learning's business plan goal of providing high quality learning opportunities to Albertans:

- accessibility;
- affordability;
- responsiveness and flexibility; and
- innovation through research excellence.

These outcomes were identified through extensive consultation with stakeholders in adult learning and are widely shared within the adult learning system. Planning activities within the system are directed toward achieving these outcomes. The government and adult learning providers share responsibility for ensuring that:

- all Albertans can participate in quality learning;
- the system is affordable;
- financial need is not a barrier to learners participating in learning opportunities;
- the system is flexible, provides a variety of programs and modes of delivery, and meets the needs of all learners, society and the economy; and
- the innovation and research capacity of the learning system will be strengthened through the enhancement and maintenance of university research excellence.

Three appendices provide additional information. Appendix A contains a summary of the data and information contained in the document, Appendix B contains the Tuition Fee Policy, and Appendix C contains a glossary of terms.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

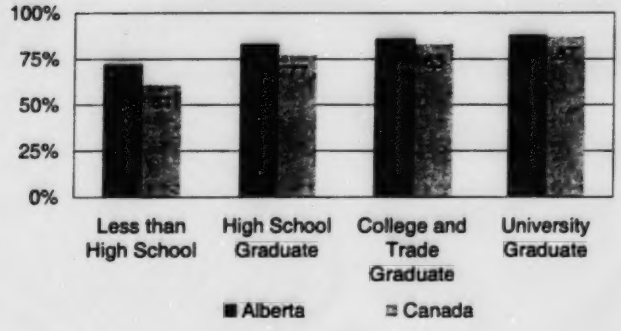
Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

The Importance of Alberta's Adult Learning System

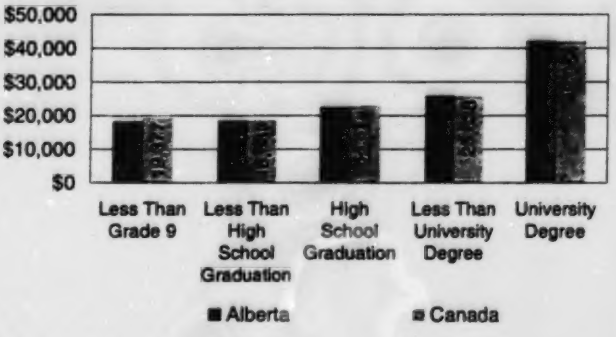
In today's emerging knowledge societies, the capacity of labour markets, organizations, and individuals to adjust to change, improve productivity, and capitalize on technological innovation depends largely on the knowledge and skills of the adult population. Improving the stock of knowledge and skills available to the economy through participation and investment in adult learning has become an issue of considerable strategic importance.[1] A society that strongly participates in adult learning is in a better position to compete on both a national and international scale.

Employment Rate of the 25 to 54 Age Group by Educational Attainment, 1998



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 241-242.

Average Earnings of the 15+ Age Group by Highest Level of Schooling, 1995



Source: Statistics Canada, 1996 Census *Nation* tables.

The benefits of adult learning extend beyond positive economic outcomes. The creation of knowledge, skills, competencies and aptitudes relevant to economic activity also affect social behaviour. Spin-off benefits affect public health, crime, the environment, parenting, political and community participation and social cohesion, which in turn feed back into economic well-being. It is now well documented that higher education can lead to a wide range of positive social outcomes, such as better health, lower crime, and fewer teenage pregnancies, for example.[2]

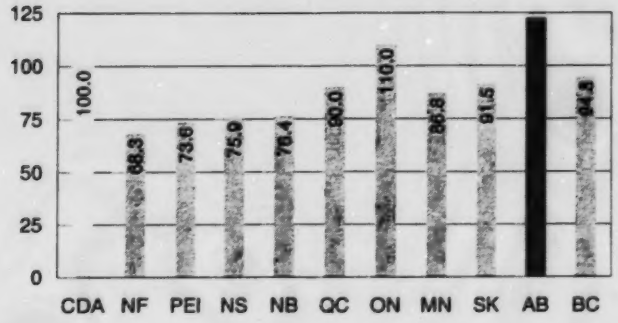
Generally, higher levels of educational attainment are associated with improved labour market outcomes for individuals. For example, we know that with each level of education attained,

---

[1] Statistics Canada and Human Resources Development Canada, *A Report on Adult Education and Training in Canada: Learning a Living*, May 2001, Catalogue 81-586-XPE, back page.
[2] Organisation for Economic Co-operation and Development, *Human Capital Investment: An International Comparison*, 1998, pp. 53, 66, 68.

individuals experience higher levels of employment.[3] We also know that earnings generally are higher at each level of education, from high school through college to university. On average, while high school graduates earn at least 25% more than those with an elementary education, university graduation raises earnings by more than 100%. Statistics Canada and Human Resources Development Canada have estimated that for each additional year of education, an individual's annual earnings increases by approximately 8.3%.[4]

Standard of Living, Provinces Relative to Canadian Index of 100, 1995-1997



Source: Industry Canada, Research Publications Program, *A Regional Perspective on the Canada-U.S. Standard of Living Comparison*, Occasional Paper Number 22, February 2000, p. 8.

Positive labour market outcomes, such as a high level of income per capita and a large proportion of the population working, result in a high standard of living. In Canada, standards of living are generally highest in Ontario and the western provinces. These provinces tend to have a higher Gross Domestic Product (GDP) and higher rates of employment. Alberta ranks first with a real GDP per capita more than 20% above the national average, followed by Ontario. The standard of living is next highest in British Columbia, Saskatchewan, Quebec and Manitoba. It is lowest in Newfoundland, at about 30% below the national average, behind Prince Edward Island, Nova Scotia and New Brunswick.[5]

Following are brief descriptions of the adult learning system and key events that have shaped its development since 1994.

Overview of Alberta's Adult Learning System

Alberta's adult learning system provides learners with a comprehensive range of credit and non-credit opportunities delivered through public, private, and community-based providers located throughout the province. Providers are unique in the range of learning opportunities provided and the students served. Additionally, several boards and councils assist with system planning and coordination.

---

[3] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 7.

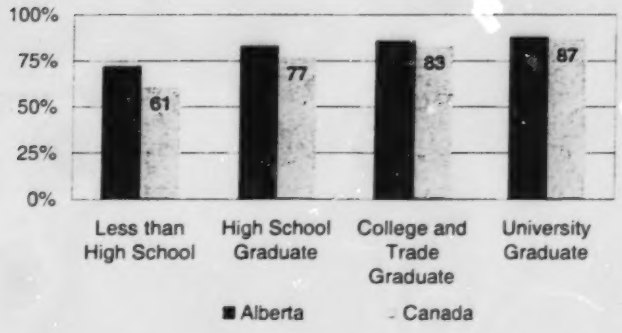
[4] Statistics Canada and Human Resources Development Canada, *Literacy, Numeracy and Labour Market Outcomes in Canada*, March 2001, Catalogue 89-552-MIE, no 8, pp. 20, 37.

[5] Industry Canada, Research Publications Program, *A Regional Perspective on the Canada-U.S. Standard of Living Comparison*, Occasional Paper Number 22, February 2000, p. 7.

The Importance of Alberta's Adult Learning System

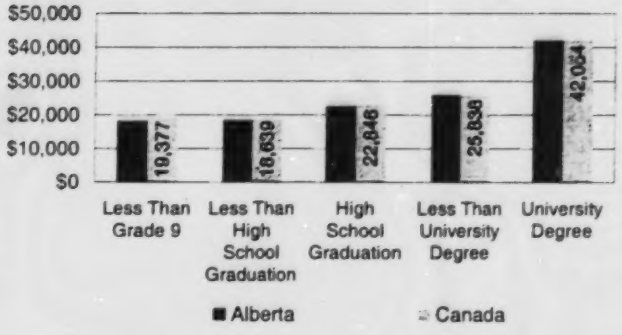
In today's emerging knowledge societies, the capacity of labour markets, organizations, and individuals to adjust to change, improve productivity, and capitalize on technological innovation depends largely on the knowledge and skills of the adult population. Improving the stock of knowledge and skills available to the economy through participation and investment in adult learning has become an issue of considerable strategic importance.[1] A society that strongly participates in adult learning is in a better position to compete on both a national and international scale.

Employment Rate of the 25 to 54 Age Group by Educational Attainment, 1998



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 241-242.

Average Earnings of the 15+ Age Group by Highest Level of Schooling, 1995



Source: Statistics Canada, 1996 Census *Nation* tables.

The benefits of adult learning extend beyond positive economic outcomes. The creation of knowledge, skills, competencies and aptitudes relevant to economic activity also affect social behaviour. Spin-off benefits affect public health, crime, the environment, parenting, political and community participation and social cohesion, which in turn feed back into economic well-being. It is now well documented that higher education can lead to a wide range of positive social outcomes, such as better health, lower crime, and fewer teenage pregnancies, for example.[2]

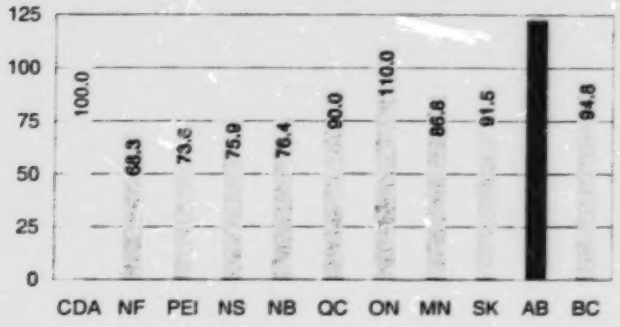
Generally, higher levels of educational attainment are associated with improved labour market outcomes for individuals. For example, we know that with each level of education attained,

---

[1] Statistics Canada and Human Resources Development Canada, *A Report on Adult Education and Training in Canada: Learning a Living*, May 2001, Catalogue 81-586-XPE, back page.
[2] Organisation for Economic Co-operation and Development, *Human Capital Investment: An International Comparison*, 1998, pp. 53, 66, 68.

individuals experience higher levels of employment.[3] We also know that earnings generally are higher at each level of education, from high school through college to university. On average, while high school graduates earn at least 25% more than those with an elementary education, university graduation raises earnings by more than 100%. Statistics Canada and Human Resources Development Canada have estimated that for each additional year of education, an individual's annual earnings increases by approximately 8.3%.[4]

Standard of Living, Provinces Relative to Canadian Index of 100, 1995-1997



Source: Industry Canada, Research Publications Program, *A Regional Perspective on the Canada-U.S. Standard of Living Comparison*, Occasional Paper Number 22, February 2000, p. 8.

Positive labour market outcomes, such as a high level of income per capita and a large proportion of the population working, result in a high standard of living. In Canada, standards of living are generally highest in Ontario and the western provinces. These provinces tend to have a higher Gross Domestic Product (GDP) and higher rates of employment. Alberta ranks first with a real GDP per capita more than 20% above the national average, followed by Ontario. The standard of living is next highest in British Columbia, Saskatchewan, Quebec and Manitoba. It is lowest in Newfoundland, at about 30% below the national average, behind Prince Edward Island, Nova Scotia and New Brunswick.[5]

Following are brief descriptions of the adult learning system and key events that have shaped its development since 1994.

Overview of Alberta's Adult Learning System

Alberta's adult learning system provides learners with a comprehensive range of credit and non-credit opportunities delivered through public, private, and community-based providers located throughout the province. Providers are unique in the range of learning opportunities provided and the students served. Additionally, several boards and councils assist with system planning and coordination.

---

[3] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 7.

[4] Statistics Canada and Human Resources Development Canada, *Literacy, Numeracy and Labour Market Outcomes in Canada*, March 2001, Catalogue 89-552-MIE, no 8, pp. 20, 37.

[5] Industry Canada, Research Publications Program, *A Regional Perspective on the Canada-U.S. Standard of Living Comparison*, Occasional Paper Number 22, February 2000, p. 7.

Public Providers

There are 23 public board-governed institutions operating under various acts of the Legislative Assembly, as well as four community consortia.

The public board-governed institutions include 4 universities, 16 colleges, 2 technical institutes, and the Banff Centre. These providers offer a broad range of skills development, certificate, diploma, applied degree, and degree programs. The universities also conduct the majority of research within the system. Credit programs are approved under policies administered by Alberta Learning. Learning provides operating grants to support delivery of credit programs, and other ministries provide support for infrastructure, research and other specific projects. The institutions also provide other services and generate revenue from tuition and other student fees, non-credit and off-campus credit programs, the operation of ancillary services (such as parking and food services), sponsored research funding from provincial and federal agencies and private industry, as well as investments and donations.

Community consortia offer credit programs in communities not directly served by a public institution, and partner with public post-secondary institutions and local communities to address learning needs. Operating grants to support program, capital, and administrative needs are provided through the Community Consortium Program Grant. Consortia may also receive funding from other Alberta Learning programs as well as other ministries, governments, and agencies.

The government regulates tuition fees for credit courses and programs offered on-campus by all public providers, excluding the Banff Centre, through legislation and the Tuition Fee Policy. Under this policy, revenue from tuition fees cannot exceed 30% of an institution's net operating expenditures. Institutions can vary the level of fees charged among programs, as long as the 30% limit is not exceeded for the institution as a whole. Additionally, annual average per student fee increases are limited (see Appendix B).

To ensure financial need is not a barrier to participation, students registered in approved programs at public and private providers may be eligible for student financial assistance, depending on their financial situation. Assistance is provided through a broad range of provincial and federal loan, grant, scholarship, and bursary programs.

Private Providers

Alberta's adult learning private providers include private colleges operating on a not-for-profit basis and businesses providing learning as a service for-profit.

Currently, seven resident private colleges in Alberta have been authorized to offer degrees in specific programs, such as arts, science and education. The first four institutions to obtain this authorization receive operating grants from Alberta

Learning, based on an historical agreement. This agreement was part of the government's overall strategy of expanding access to meet the post-secondary learning needs of the baby boom population. Since 1998, all other private colleges authorized to offer degree programs do not receive operating grants from government.

Alberta has other private colleges that provide non-regulated programs. Some of these colleges are affiliated with other Alberta post-secondary institutions, colleges in the United States, and Canadian or American Bible college/theological schools or associations. The provincial government does not provide funding to these institutions.

Additionally, there are more than 150 private institutions offering programs that respond to current labour market demands by preparing students for employment in a wide variety of occupations. In general, programs are specific to a vocation and less than one year in duration. Examples include hairstyling, acupuncture, commercial truck driving, health care, and information technology. In Alberta, vocational training programs offered by private institutions are licensed under the *Private Vocational Schools Act*. Private vocational school licensing is program and site specific. Under the legislation, owners of private institutions offering licensed programs pay application and licensing fees, post security to protect the tuition paid by students, and report annually on graduation and job placement for each student in each licensed program. Private vocational schools receive no direct funding from the provincial government.

The province does not regulate tuition fees for programs offered by private colleges and vocational schools. However, students enrolled in approved programs at private providers may be eligible for student financial assistance through the provincial and federal governments, depending on their financial situation.

Community-based Providers

Alberta Learning provides grants to over 150 non-profit voluntary organizations to provide non-credit adult learning opportunities and to enable adults to improve their foundation skills in adult basic literacy and English as a second language. Community Adult Learning Councils provide non-credit courses in over 84 communities across Alberta. The purpose of these councils is to improve access to learning opportunities, especially for individuals with special needs or barriers to learning. Courses focus on occupational enhancement, English as a second language, adult basic literacy, and other community-specific needs. Other community programs funded in whole or in part by Alberta Learning include non-profit immigrant-serving organizations in eight Alberta communities, English as a Second Language projects offered by experienced public, not-for-profit, and private providers throughout the province, as well as 74 Volunteer Tutor Adult Literacy programs across Alberta.

Boards and Councils

Boards and councils that assist the Minister of Learning in the planning and coordination of the adult learning system include the Alberta Council on Admissions and Transfer, Alberta Apprenticeship and Industry Training Board, Private Colleges Accreditation Board, and Students Finance Board.

The Alberta Council on Admissions and Transfer (ACAT) develops policies, guidelines and procedures to facilitate transfer agreements among Alberta's post-secondary institutions. The council encourages negotiations, where appropriate, for programs and courses not presently covered by transfer agreements. Although aimed primarily at provincial post-secondary institutions, ACAT also facilitates transfer arrangements with two institutions outside Alberta, and distributes the *Alberta Transfer Guide* across Canada and the United States. ACAT provides leadership to Alberta's post-secondary transfer system to increase adult learning opportunities through student transfer, and provide accurate information to learners about admission and transfer opportunities.

The Alberta Apprenticeship and Industry Training Board (AAITB) provides advice to the Minister on training and certification in designated trades and occupations, and on the needs of the Alberta labour market. The Board's duties also include:

- setting training and certification standards in all trades and designated occupations;
- appointing members of provisional committees, local and provincial apprenticeship committees, and occupational training committees;
- developing regulations (with the Minister's approval) for designated trades and designated occupations; and
- developing policies to recognize training programs as equivalent to those provided under the *Apprenticeship and Industry Training Act*.

The Private Colleges Accreditation Board (PCAB) sets conditions to be met by resident private colleges that wish to offer programs leading to bachelor degrees, other than those in Divinity programs. The Board reviews program proposals and makes recommendations to the Minister. Institutions are authorized to grant degrees through approval of an Order in Council.

The Students Finance Board (SFB) advises the Minister on matters relating to student financial assistance, under authority of the *Students Finance Act*. It also advises the Minister on scholarships under the *Alberta Heritage Scholarship Act*. The Board may also conduct investigations or research studies on issues relating to student financial assistance on the Minister's behalf.

Key Events

It is important to consider the context in which the adult learning system operated over the period covered by this report, primarily 1994-95 to 1999-00. This was a period of substantial change within the system. Following are a number of key events that occurred within this timeframe:

- The publication of *New Directions for Adult Learning in Alberta* (October 1994) by the former ministry of Advanced Education and Career Development. Through extensive consultation with Albertans, a new policy framework was developed for the adult learning system.
- The introduction of the *Government Accountability Act* and three-year business planning process as a requirement of both the ministry and publicly-funded post-secondary institutions.
- The three-year, 21% reduction in provincial operating grants to post-secondary institutions and community program providers beginning in 1994-95.
- The amendment of the Tuition Fee Policy in 1994-95 to allow revenue from tuition fees at public institutions to rise to 30% of net operating expenditures by 2000. Average annual increases continued to be limited.
- The introduction of a performance-based funding mechanism with targeted funding envelopes to assist and act as incentives for post-secondary institutions to make changes in support of government and system-wide goals.
- The introduction and development of Key Performance Indicators.
- The amalgamation of the former ministries of Advanced Education and Career Development and Education into the Ministry of Learning in May 1999. At the same time, responsibility for post-secondary infrastructure and research was transferred to the Ministries of Infrastructure and Innovation and Science respectively, and the responsibility for career development services and training programs was transferred to the Ministry of Human Resources and Employment.
- Consultations with stakeholders regarding lifelong learning, Campus Alberta, and funding to post-secondary institutions.

Since 1999-00, the Alberta government has made significant reinvestments in Alberta's adult learning system including $10 million for funding review adjustments, $28.5 million for faculty retention, $183 million for infrastructure and $63 million for a new student loan relief program.

Accessibility

All Albertans can participate in quality learning.

As a result of the associated economic and social benefits, participating in adult learning has become increasingly important to Albertans and Canadians. One of the central goals of Alberta's adult learning system is to ensure that Albertans have opportunities to access learning. This includes responding to the demand for access to a post-secondary education from recent high school graduates, as well as providing education, training and skill enhancement opportunities for mature Albertans and Albertans already in the workforce. Within the ministry's business plan, a key strategy for the adult learning system under the goal of high quality learning opportunities is to "enhance access to learning opportunities" so that "all Albertans can participate in quality learning."

Overview

In 1999-00, more than 119,500 full-load equivalent (FLE) students were enrolled in credit programs at publicly-funded post-secondary institutions, including 47% in universities, 34% in colleges, 17% in technical institutes, and 2% in private university colleges. About 137,000 learners participated in non-credit courses and programs offered by publicly-funded post-secondary institutions. Another 15,000 learners were registered in licensed programs provided by private vocational schools, and close to 138,000 learners took non-credit courses through Alberta's Community Adult Learning Councils and other community programs.

Full-load Equivalent Credit Enrolment in Publicly-funded Post-secondary Institutions	**1994-95**	**1999-00**	**Percent Change**
Universities	47,952	56,098	17.0
Colleges	39,084	40,202	2.9
Technical Institutes	16,290	20,408	25.3
Private University Colleges	2,654	2,596	-2.2
The Banff Centre	247	270	9.2
Total	106,227	119,574	12.6

Non-credit Student Registrants in Publicly-funded Post-secondary Institutions	**1994-95**	**1999-00 (preliminary)**	**Percent Change**
Universities	15,907	54,711	243.9
Colleges	33,936	43,258	27.5
Technical Institutes	10,483	39,647	278.2
Private University Colleges	n/a	n/a	n/a
The Banff Centre	n/a	n/a	n/a
Total	60,326	137,616	128.1

Student Headcount in Private Vocational Schools	1995-96	1998-99	Percent Change
Licensed Vocational Programs	15,764	15,015	-4.8

Participants in Community Programs	1994-95	1999-00 (preliminary)	Percent Change
Immigrant Settlement Services	n/a	12,165	n/a
Immigrant Language Training Programs	n/a	13,472	n/a
Community Adult Learning Councils – adult basic literacy, citizenship, English/French as a second language, occupational and vocational	n/a	94,765	n/a
Community Adult Learning Councils – general interest	n/a	13,360	n/a
Volunteer Tutor Adult Literacy Program	n/a	4,082	n/a
Total	n/a	137,844	n/a

Note: n/a = not available. Credit enrolment is on a Full Load Equivalent (FLE) basis and includes learners enrolled in degree, diploma, certificate and other credit offerings. One FLE represents one student for a standard year of study taking what is considered to be a full load in a specific program. 1995-96 non-credit student headcount data for technical institutes were used as a proxy for 1994-95 data, which were not available.

Sources: Alberta Learning, Learner and Enrolment Reporting System and Key Performance Indicator Reporting System; Private Institutions Branch, Adult Learning Division; Community Programs Branch, Adult Learning Division.

Participation in Credit Programs at Publicly-funded Post-secondary Institutions

Enrolment Growth

Since 1994-95, Alberta's population has grown faster than the national average, and enrolment in credit programs at Alberta's publicly-funded post-secondary institutions has grown faster than the provincial population. Between 1994-95 and 1999-00, credit enrolment increased by an average of 2.41% per year, while the province's population grew by an average of 1.81%. In total for the period, credit enrolment increased by over 13,000 FLEs or 12.56%.

Year	FLE Enrolment	FLE Enrolment Change	Alberta Population Change	Canada Population Change
1994-95	106,227			
1995-96	108,866	2.48%	1.29%	1.09%
1996-97	111,441	2.37%	1.49%	1.08%
1997-98	111,011	-0.39%	2.03%	1.06%
1998-99	115,084	3.67%	2.46%	0.87%
1999-00	119,574	3.90%	1.80%	0.81%
Average Annual Change		2.41%	1.81%	0.98%
Total Change for the Period		12.56%	9.41%	5.02%

Sources: Alberta Learning, Learner and Enrolment Reporting System; Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 21.

Between 1996 and 2000, population growth across Canada has been highest in the predominantly urban regions of the country. At 3%, Calgary had the highest average annual growth rate among all census metropolitan areas in Canada, and Edmonton was fifth with an average annual growth rate of 1.6%.[6] By and large, growth in credit enrolment since 1994-95 has reflected the population growth pattern, with the highest rates of growth occurring at institutions in Alberta's larger urban centres. Calgary led the province with its institutions accounting for over 45% of total enrolment growth, while Edmonton was second with an increase of just under 25%. Overall, Alberta's three largest urban centers – Calgary, Edmonton, and Lethbridge – accounted for 80% of total enrolment growth, which is slightly greater than their proportion (70%) of the province's total population.[7]

An exception to the general growth pattern was the large increase in enrolment at Athabasca University, which accounted for over 15% of total growth. Athabasca University is mandated to provide programs through distance education methods and technologies. The increased acceptance of distance education, its suitability for digital applications, the emergence of e-learning, and internationalization have combined to result in a tremendous expansion of the distance learning market. Currently, about 44% of Athabasca University's students come from Alberta, another 21% are from Ontario, 9% from British Columbia, 7% from Saskatchewan, 13% from the rest of Canada, and 6% are international.[8]

Institution	Location	FLE Enrolment 1994-95	FLE Enrolment 1999-00	Difference	Difference as a % of Total System Growth
ACAD	Calgary	676.1	839.9	163.8	1.2
Bow Valley College	Calgary	3,982.3	3,035.9	-946.4	-7.1
Mount Royal College	Calgary	5,189.3	6,518.4	1,329.1	10.0
SAIT	Calgary	7,624.4	9,750.3	2,125.9	15.9
University of Calgary	Calgary	17,709.6	21,095.8	3,386.2	25.4
Sub-total		35,181.7	41,240.3	6,058.6	45.4
Concordia University College	Edmonton	1,098.9	1,040.5	-58.4	-0.4
Grant MacEwan College	Edmonton	5,777.8	7,851.4	2,073.6	15.5
NAIT	Edmonton	8,665.6	10,657.6	1,992.0	14.9
NorQuest College	Edmonton	5,838.0	3,414.3	-2,423.7	-18.2
The King's University College	Edmonton	384.7	435.5	50.8	0.4
University of Alberta	Edmonton	24,338.0	25,981.0	1,643.0	12.3
Sub-total		46,103.0	49,369.4	3,266.4	24.6

[6] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, pp. 7, 11.
[7] Alberta Treasury, *Alberta Population Projections by Census Divisions, 1999-2016*, pp. 23, 39, 59, 252.
[8] Athabasca University, http://www.athabascau.ca/main/intro.htm.

Institution	Location	FLE Enrolment 1994-95	FLE Enrolment 1999-00	Difference	Difference as a % of Total System Growth
Lethbridge Community College	Lethbridge	3,695.3	3,962.9	267.6	2.0
University of Lethbridge	Lethbridge	4,092.6	5,173.9	1,081.3	8.1
Sub-total		7,787.9	9,136.8	1,348.9	10.1
The Banff Centre	Banff	247.3	270.0	22.7	0.2
Augustana University College	Camrose	842.7	750.3	-92.4	-0.7
Canadian University College	College Heights	327.5	370.0	42.5	0.3
Fairview College	Fairview, Peace River	965.6	718.0	-247.6	-1.9
Keyano College	Fort McMurray	1,125.2	1,356.0	230.8	1.7
Grande Prairie Regional College	Grande Prairie	1,506.7	1,507.6	0.9	0.0
Northern Lakes College	Grouard, Slave Lake	1,249.1	1,308.5	59.4	0.4
Portage College	Lac La Biche	892.2	1,028.3	136.1	1.0
Medicine Hat College	Medicine Hat, Brooks	1,921.6	2,368.2	446.6	3.3
Olds College	Olds	982.7	1,261.0	278.3	2.1
Red Deer College	Red Deer	3,848.4	3,582.8	-265.6	-2.0
Lakeland College	Vermillion, Lloydminster	1,433.4	1,448.7	15.3	0.1
Sub-total		15,342.4	15,969.4	627.0	4.7
Athabasca University	Athabasca	1,811.7	3,847.6	2,035.9	15.3
Total		106,226.7	119,574.4	13,347.7	100.0

Note: A substantial portion of the enrolment decrease at NorQuest College resulted from cancellations/changes to contract arrangements for academic upgrading and personal support aide programs.
Source: Alberta Learning, Learner and Enrolment Reporting System.

Alberta's population is projected to continue to grow at rates that exceed the national average, with substantial growth continuing to occur in the larger urban centers.

Over the next ten years, post-secondary enrolment in Alberta is expected to be affected by population characteristics as well as changes in the economy and workplace environment. The baby boom and westward drift of the Canadian population in the post-World War II period resulted in the baby boom population comprising a larger share of the population in Ontario and western Canada than in other regions. Fertility was also slightly higher in Ontario and western Canada than in Quebec and the East. These two forces combined to result in a larger echo boom population in Ontario and the West and almost no echo boom in Quebec and eastern Canada. In 2000, with a median age of 34.4 years, Alberta had the youngest

population of any province in Canada.[9] The echo boom population, born between 1980 and 1995, has only recently begun to complete high school and enter the post-secondary system. For the next decade, post-secondary enrolments are expected to increase, especially in jurisdictions with a sizeable echo boom generation.[10]

In Alberta, high school completion within four years of entering Grade 9 has increased since 1994-95.[11] According to Alberta Learning's recent *Post-Secondary Accessibility Study*, more than half (53%) of Alberta's high school graduates enter post-secondary studies directly after graduation, while 97% of the remainder intend to pursue post-secondary studies sometime in the future. Among those intending to enroll, 68% intend to do so within three years.[12]

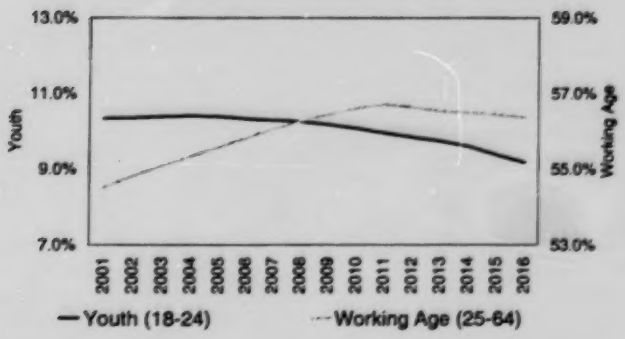
With total enrolment growth ranging between 11% and 15% for the next five-year period, Alberta Learning's enrolment projections reflect the echo boom transition from high school to the post-secondary level. Although the average annual increase will be between 2.69% and 3.45%, the rate of increase is expected to peak in 2002 with a range of 3.75% to 4.43%, and decline gradually thereafter, reaching a moderate growth rate of between 2% and 3% by 2005. Moderate rates of growth are expected to continue after 2005. Throughout the 1990s, Alberta's population grew more from net international and inter-provincial migration than natural increase, with the bulk of the increase among the working age (25 to 64) population. This trend is expected to continue. As Alberta's echo boom population ages and population growth continues to be fuelled by migration, youth's proportionate share of the population will decline.[13]

Year	Projected FLE Enrolment (low scenario)	Change	Projected FLE Enrolment (high scenario)	Change	Alberta Projected Population Change	Canada Projected Population Change
2001	127,309	2.19%	128,382	3.05%	1.08%	0.82%
2002	132,085	3.75%	134,069	4.43%	1.00%	0.83%
2003	136,075	3.02%	139,139	3.78%	0.93%	0.80%
2004	139,447	2.48%	143,622	3.22%	0.93%	0.78%
2005	142,224	1.99%	147,588	2.76%	0.89%	0.76%
Average Annual Change		2.69%		3.45%	0.97%	0.80%
Total Change over Period		11.72%		15.00%	3.81%	3.21%

Sources: Alberta Learning, Information and Strategic Services Division, Policy Research Branch, *Enrolment Forecast*, March 2001; Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 21.

[9] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 69.
[10] David K. Foot, "Demographic Change and Future Challenges," *Education Canada*, vol. 41, no. 1, Spring 2001, p. 25.
[11] Alberta Learning, *Results Report 1999-2000*, p. 29.
[12] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, pp. 1-2.
[13] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB.

Projected Youth and Working Age Population as a Percentage of Total Population, Alberta



Source: Statistics Canada, *Population Projections for Canada, Provinces and Territories, 2000-2026*, Catalogue 91-250.

While Alberta's post-secondary enrolment is expected to be driven in large part by the echo boom population, there may also be pressure to accommodate mature learners. Between 2001 and 2016, Canada's working age population (25 to 64) is forecast to increase by almost 17%, with the highest growth expected in Ontario at 24.1%, British Columbia at 23.8%, and Alberta at 19.7%.[14] This substantial growth in the working age population, combined with the development of the knowledge economy and ongoing technological change, is expected to increase the demand for skill upgrading, retraining, and continuous learning.

Finally, post-secondary pressures will arise from both the short-term and long-term demands of the economy and workplace environment. Currently, Alberta is facing a shortage of skilled workers in many areas. In the third quarter of 2001, 8 out of 20 industries in the province had unemployment rates below 3.5%, a widely accepted indicator of a labour market shortage. Industries requiring technical and apprenticeship trades training as well as college and university education, including construction; professional, scientific and technical services; health care and social assistance; and public administration, are among those experiencing the most severe shortfalls.[15]

Economic growth in Alberta is expected to be about 3.5% annually for the next ten years, with the number of jobs expected to grow at about 3% per year over the same period. Employment growth is expected across a range of industries including resources, manufacturing, services and high technology. It has been projected that post-secondary education or training will be required for 79% of all new jobs created over this period.[16]

Over the next five years, there is projected to be a strong demand for occupations that require university degrees, college diplomas, and technical and apprenticeship trades training. Jobs requiring a college diploma or apprenticeship trades certificate are expected to grow by 12.4%, while those requiring a university degree will grow by

---

[14] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 179-180.

[15] Alberta Human Resources and Employment, *Labour Force Statistics, October 2001 Briefing Package*, pp. 11-12.

[16] Human Resources Development Canada, *Job Futures 2000*.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

Micromedia
ProQuest

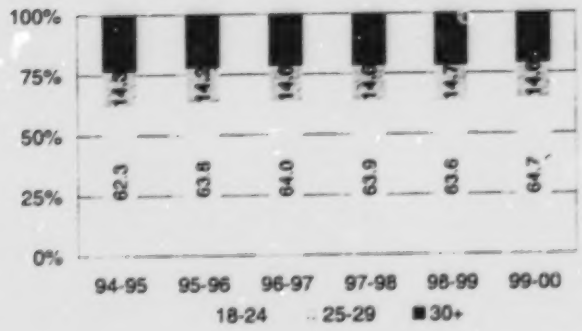
20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

10.8%.[17] Demand for university and college graduates will be particularly strong in computing and associated subject areas, business management, tourism, nursing, and industrial and electronic engineering. In technical and apprenticeship trades training, there will be a strong demand for graduates in information technology as well as for skilled trades people in various sectors of the economy.[18]

Participation by Age

People of all ages participate in credit programs at Alberta's publicly-funded post-secondary institutions; however, youth comprise the vast majority of enrolment. In 1999-00, youth aged 18 to 24 comprised about 65% of total enrolment, people aged 25 to 29 around 14%, and those over 30 years of age about 21%. The age composition of Alberta's post-secondary credit student enrolment has remained relatively constant since 1994-95.

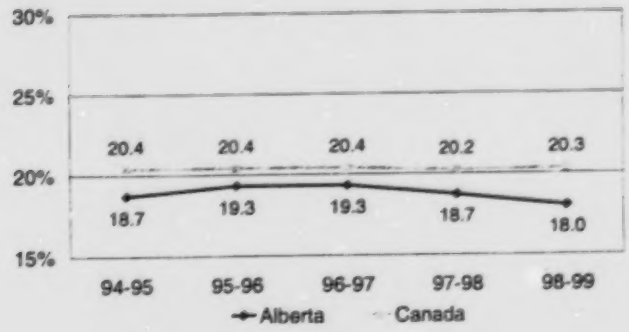
Credit Enrolment Composition by Student Age (Full-time and Part-time Headcount)



Source: Alberta Learning, Learner and Enrolment Reporting System.

Although youth comprise the single largest age group of students enrolled in post-secondary institutions, the general trend throughout the 1990s has been a flattening of full-time youth participation in university and college education, both in Alberta and across Canada.

Full-time University Enrolment as a Proportion of the Population Aged 18 to 24



Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 95, 104.

Nation-wide, 20.3% of young people aged 18 to 24 attended university full-time in 1998-99, representing little change from 20.4% in 1994-95. Similarly, 24.7% of Canadian young people aged 18 to 21 were enrolled full-time in college in 1997-98, up only slightly from 24.2% in 1987-88.[19] In Alberta, the proportion of

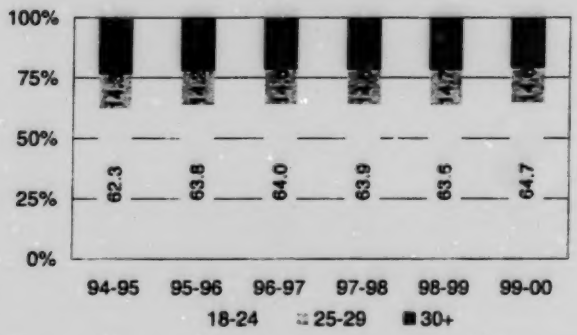
[17] Human Resources Development Canada, *Job Futures 2000*.
[18] Alberta Human Resources and Employment, *Alberta Careers Beyond 2000, Update*, p. 37.
[19] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 95.

10.8%.[17] Demand for university and college graduates will be particularly strong in computing and associated subject areas, business management, tourism, nursing, and industrial and electronic engineering. In technical and apprenticeship trades training, there will be a strong demand for graduates in information technology as well as for skilled trades people in various sectors of the economy.[18]

Participation by Age

People of all ages participate in credit programs at Alberta's publicly-funded post-secondary institutions; however, youth comprise the vast majority of enrolment. In 1999-00, youth aged 18 to 24 comprised about 65% of total enrolment, people aged 25 to 29 around 14%, and those over 30 years of age about 21%. The age composition of Alberta's post-secondary credit student enrolment has remained relatively constant since 1994-95.

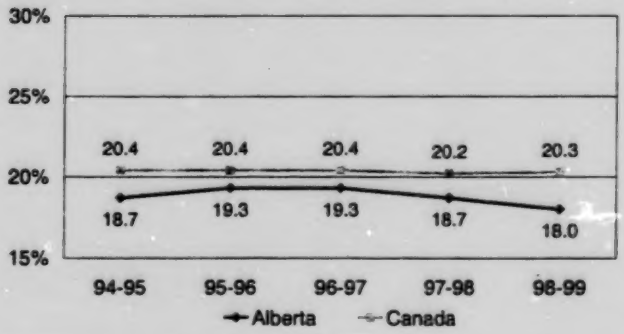
Credit Enrolment Composition by Student Age (Full-time and Part-time Headcount)



Source: Alberta Learning, Learner and Enrolment Reporting System.

Although youth comprise the single largest age group of students enrolled in post-secondary institutions, the general trend throughout the 1990s has been a flattening of full-time youth participation in university and college education, both in Alberta and across Canada.

Full-time University Enrolment as a Proportion of the Population Aged 18 to 24



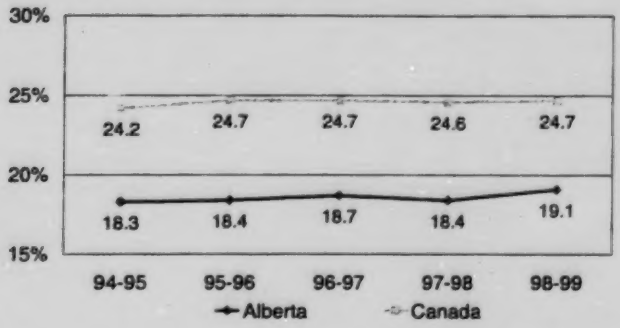
Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 95, 104.

Nation-wide, 20.3% of young people aged 18 to 24 attended university full-time in 1998-99, representing little change from 20.4% in 1994-95. Similarly, 24.7% of Canadian young people aged 18 to 21 were enrolled full-time in college in 1997-98, up only slightly from 24.2% in 1987-88.[19] In Alberta, the proportion of

[17] Human Resources Development Canada, *Job Futures 2000.*
[18] Alberta Human Resources and Employment, *Alberta Careers Beyond 2000, Update*, p. 37.
[19] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 95.

youth aged 18 to 24 attending university full-time dropped slightly, from 18.7% in 1994-95 to 18.0% in 1998-99. At the same time, the proportion of Albertans aged 18 to 21 enrolled full-time in college rose only marginally, from 18.3% in 1994-95 to 19.1% in 1998-99.[20] This slight rise in college participation has been attributed to the growing popularity of university transfer programs, which provide some students with a useful transition to the university environment.[21] In Alberta, FLE enrolment in university transfer programs increased 40.8% from 1994-95 to 1999-00.[22]

Full-time Community College Enrolment as a Proportion of the Population Aged 18 to 21



Note: Canada's college participation rate is inflated by the inclusion of Quebec where university entrance qualification is dependent upon completion of a two-year program at a "colleges d'enseignement general et profession" (CEGEP). The community college classification includes Alberta's technical institutes.

Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 95, 104.

Many factors, such as indecision, academic achievement, socio-economic background, parental influence, cost, the availability of other educational programs, and the strength of the economy and number of job opportunities affect a student's decision to participate in college or university.[23] Although full-time youth participation in Alberta has dropped slightly at the university level, part-time participation has grown substantially. Between 1988-89 and 1998-99, the percentage of Alberta's undergraduate students aged 20 to 24 attending part-time increased by half, from 20% to 30%, while at the graduate level, part-time youth participation increased from 2% to 4%.[24]

Alberta has had the fastest growing economy in Canada over the past five years, with the annual real rate of growth averaging 4.5%. Between 1995 and 2000, approximately 219,000 new jobs were created in the province.[25] Alberta's economic and employment growth is forecast to continue to exceed the national average, which may continue to influence part-time enrolment levels within the province.

---

[20] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 104.

[21] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 41.

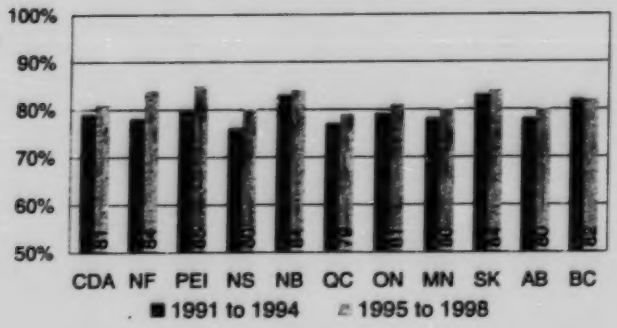
[22] Alberta Learning, Learner and Enrolment Reporting System.

[23] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000; Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 45.

[24] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 115.

[25] Alberta Economic Development, http://www.alberta-canada.com/economy/ecores.cfm.

High School Completion Rate of the Population Aged 19 to 20

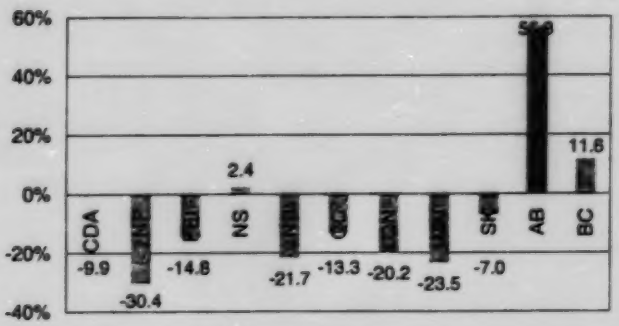


Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 228.

Despite the increase in part-time youth participation, the flattening in full-time college and university participation among Alberta's youth is a trend that may warrant concern. With aging populations and low fertility rates, industrialized countries around the world may face labour market shortages within the next 20 years. Canada may need to compete with other countries for immigrants to offset a decline in the working population. In 1999-00, net international migration to Canada was almost 15% lower than it was in 1991-92, and is not expected to increase substantially in the future.[26] Although Alberta comprises 10% of Canada's population, it attracts only 5% of immigrants to the country.[27]

High school completion is a critical component in making the transition to the higher education and training that is needed for success in a knowledge society. Although the high school completion rate of Alberta's population aged 19 to 20 has improved since 1991, its current rate of 80% is slightly below the Canadian average and below many of the other provinces. A positive trend of the late 1990s has been that by ages 25 to 34, about 88% of Albertans have completed high school.[28]

Percent Change in Part-time University Enrolment, 1994-95 to 1999-00



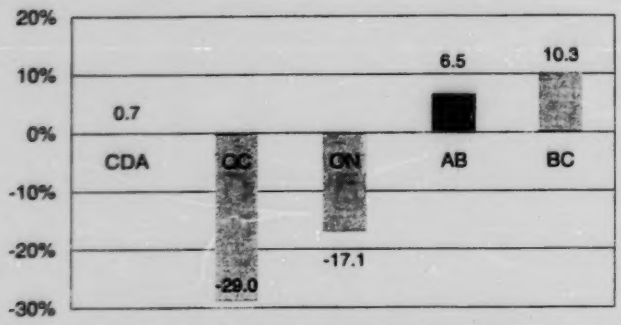
Sources: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 58-59; *The Daily*, November 8, 2001, pg. 2.

Part-time Versus Full-time Participation

Part-time enrolment in general has increased in Alberta since the mid-1990s, while Canada as a whole has experienced a decline. Between 1994-95 and 1999-00, Alberta's part-time university enrolment rose by 56.3%, in contrast to a 9.9% reduction nation-wide. At the community college level, Alberta's part-

[26] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 23.
[27] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, pp. 23, 41.
[28] Alberta Learning, *2001-2004 Business Plan*, p. 11.

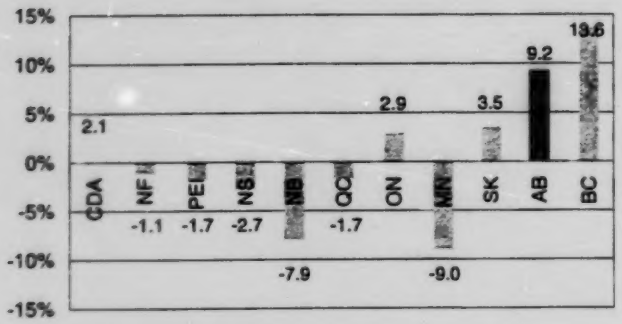
Percent Change in Part-time Community College Enrolment, 1994-95 to 1998-99



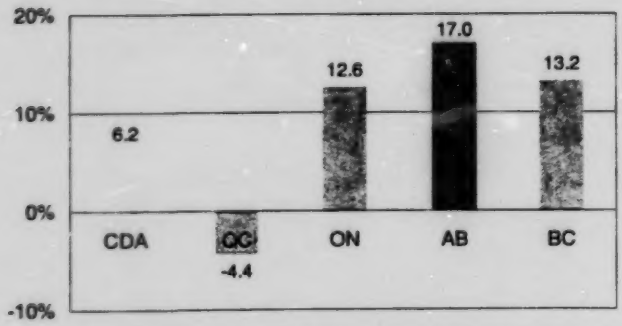
Note: Only Quebec, Ontario, Alberta and British Columbia have a significant number of part-time community college enrolments, collectively comprising 95% of Canada's total. Part of Ontario's part-time community college decrease is due to the reclassification of some enrolment into continuing education.

Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 52-53.

Percent Change in Full-time University Enrolment, 1994-95 to 1999-00



Percent Change in Full-time Community College Enrolment, 1994-95 to 1998-99



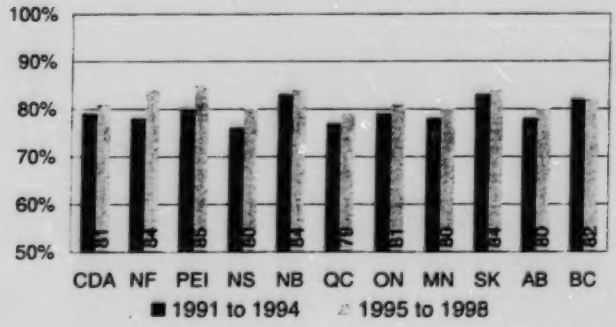
Sources: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 52-53, 58-59; *The Daily*, November 8, 2001, pg. xx.

time enrolment increased 6.5% between 1994-95 and 1998-99, while Canada's rose only marginally by 0.7%.

Alberta, British Columbia, and Nova Scotia were the only provinces to see their part-time university enrolment increase. Alberta and British Columbia were the only two provinces in the country to experience significant increases in full-time university enrolment between 1994-95 and 1999-00. At 13.6%, B.C.'s increase was the largest, while Alberta's was second at 9.2%. With the exception of a marginal increase of 3.5% in Saskatchewan and 2.9% in Ontario, full-time university enrolment in all other provinces declined over the period.

In contrast, full-time enrolment in community colleges has increased substantially in all provinces except Quebec and Manitoba. Of the provinces with enrolment exceeding 25,000, Alberta's rate of increase was the largest at 17%, with B.C. and Ontario ranking second and third with increases of 13.2% and 12.6% respectively. Overall, full-time community college enrolment in Canada rose by 6.2% between 1994-95 and 1998-99.

High School Completion Rate of the Population Aged 19 to 20

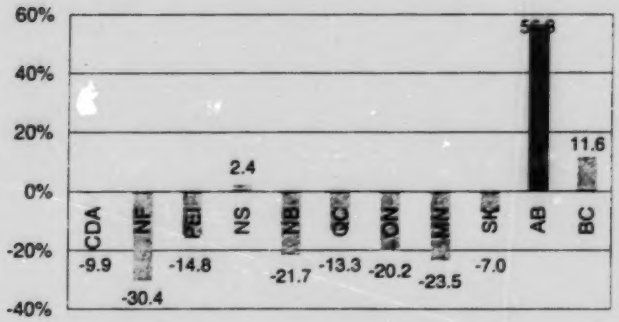


Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 228.

Despite the increase in part-time youth participation, the flattening in full-time college and university participation among Alberta's youth is a trend that may warrant concern. With aging populations and low fertility rates, industrialized countries around the world may face labour market shortages within the next 20 years. Canada may need to compete with other countries for immigrants to offset a decline in the working population. In 1999-00, net international migration to Canada was almost 15% lower than it was in 1991-92, and is not expected to increase substantially in the future.[26] Although Alberta comprises 10% of Canada's population, it attracts only 5% of immigrants to the country.[27]

High school completion is a critical component in making the transition to the higher education and training that is needed for success in a knowledge society. Although the high school completion rate of Alberta's population aged 19 to 20 has improved since 1991, its current rate of 80% is slightly below the Canadian average and below many of the other provinces. A positive trend of the late 1990s has been that by ages 25 to 34, about 88% of Albertans have completed high school.[28]

Percent Change in Part-time University Enrolment, 1994-95 to 1999-00



Sources: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 58-59; *The Daily*, November 8, 2001, pg. 2.

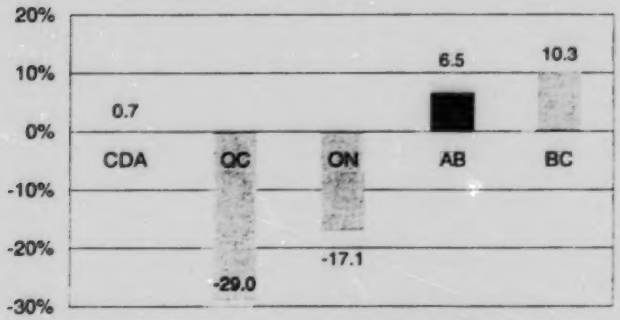
Part-time Versus Full-time Participation

Part-time enrolment in general has increased in Alberta since the mid-1990s, while Canada as a whole has experienced a decline. Between 1994-95 and 1999-00, Alberta's part-time university enrolment rose by 56.3%, in contrast to a 9.9% reduction nation-wide. At the community college level, Alberta's part-

---

[26] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 23.
[27] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, pp. 23, 41.
[28] Alberta Learning, *2001-2004 Business Plan*, p. 11.

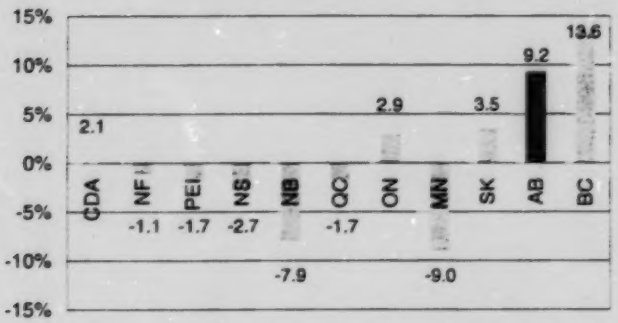
Percent Change in Part-time Community College Enrolment, 1994-95 to 1998-99



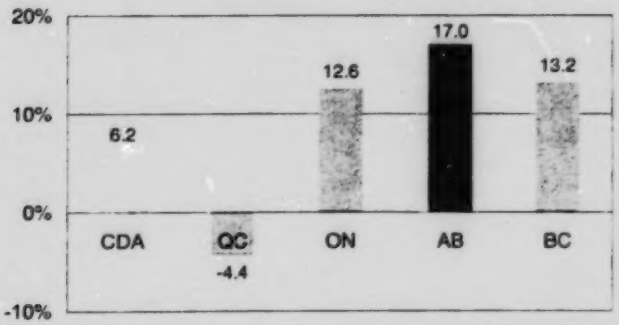
Note: Only Quebec, Ontario, Alberta and British Columbia have a significant number of part-time community college enrolments, collectively comprising 95% of Canada's total. Part of Ontario's part-time community college decrease is due to the reclassification of some enrolment into continuing education.

Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 52-53.

Percent Change in Full-time University Enrolment, 1994-95 to 1999-00



Percent Change in Full-time Community College Enrolment, 1994-95 to 1998-99



Sources: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 52-53, 58-59; *The Daily*, November 8, 2001, pg. xx.

time enrolment increased 6.5% between 1994-95 and 1998-99, while Canada's rose only marginally by 0.7%.

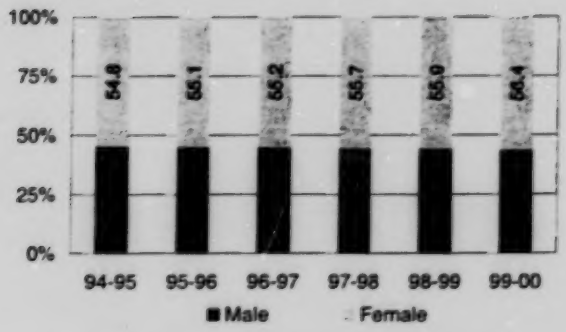
Alberta, British Columbia, and Nova Scotia were the only provinces to see their part-time university enrolment increase. Alberta and British Columbia were the only two provinces in the country to experience significant increases in full-time university enrolment between 1994-95 and 1999-00. At 13.6%, B.C.'s increase was the largest, while Alberta's was second at 9.2%. With the exception of a marginal increase of 3.5% in Saskatchewan and 2.9% in Ontario, full-time university enrolment in all other provinces declined over the period.

In contrast, full-time enrolment in community colleges has increased substantially in all provinces except Quebec and Manitoba. Of the provinces with enrolment exceeding 25,000, Alberta's rate of increase was the largest at 17%, with B.C. and Ontario ranking second and third with increases of 13.2% and 12.6% respectively. Overall, full-time community college enrolment in Canada rose by 6.2% between 1994-95 and 1998-99.

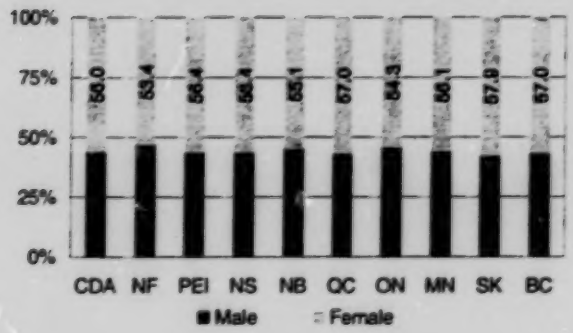
Participation by Gender

For the past twenty years, the participation and performance of female students within the post-secondary sector has been an area of concern; however, indicators now show significant improvement in this area. Nation-wide, women now comprise more than half of all college and university enrolments and graduates. In 1997, females received 58% of university diplomas and degrees, up from 53% a decade earlier.[29] Like the rest of Canada, women comprise more than 50% of students enrolled in credit programs at Alberta's publicly-funded post-secondary institutions. This percentage has remained relatively constant since 1994-95.

Alberta Student Composition by Gender, as a Percent of Total



Student Composition by Gender, as a Percent of Total, Canada and Other Provinces, 1998-99



Sources: Alberta Learning, Learner and Enrolment Reporting System; Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 52-53, 56-57, 58-59.

The most recent report of the Pan-Canadian Education Indicators Program now suggests that there is a need to monitor the progress of male students in some areas. Not only did Canada's male secondary students have weaker reading and writing scores on School Achievement Indicators Program tests than their female counterparts, but data on high school completion also show that male students are less likely to graduate. Between 1995 and 1998, among those aged 19 and 20, 84% of females had graduated from high school compared to 78% of males.[30]

---

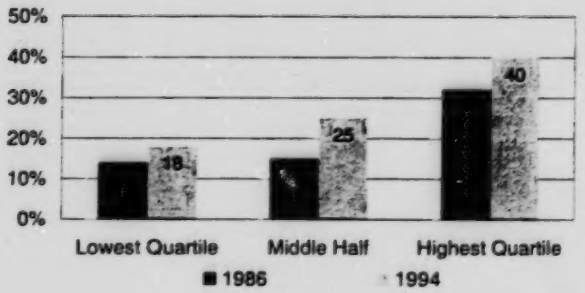
[29] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 5.

[30] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 5.

Participation by Socio-Economic Status

Throughout Canada, there continues to be a gap in university participation rates between persons from low and middle socio-economic status (SES) backgrounds. Although the percentage of 18 to 21-year-olds from each quartile has grown between 1986 and 1994, the disparity between the participation of the lowest quartile and the other quartiles has also increased. In 1986, results from Statistics Canada's *General Social Survey* showed no significant difference in participation rates among students from the lowest SES quartile and those in the middle two quartiles. By 1994, a gap of seven percentage points had opened up, with participation rates of 18% and 25% respectively, as the considerable increase in participation among those in the middle quartiles outpaced the increase among the lowest quartile. At 40%, those in the highest SES quartile continued to show by far the highest university participation rate.

Percentage of the Population Aged 18 to 21 Attending University, by Family Socio-economic Status, Canada



Note: Socio-economic status refers to an individual's or a family's relative position in society. In social research, it is operationally defined using variables such as educational attainment, occupation, income, or a combination thereof.

Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 106-107, 168.

Although Statistics Canada data are not available by province, Alberta Learning's recent *Post-Secondary Accessibility Study* has confirmed that the more affluent the household, the more likely respondents were to be enrolled in post-secondary studies. For example, 43% of respondents from households of less than $40,000 in total income were enrolled in post-secondary learning, increasing to 52% among those from middle-income households of $40,000 to $70,000, and to 63% among those from the most affluent households ($70,000 or more). However, of those students academically eligible to continue into post-secondary studies, there was no substantial difference between enrolment levels of students from low and high-income households.[31]

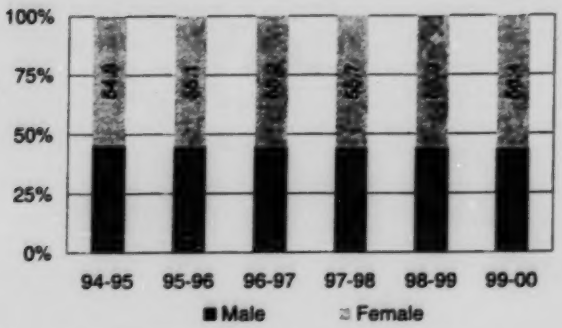
The accessibility study also indicates that although respondents from middle-income households were more likely than those from lower or higher income households to over-estimate post-secondary costs, respondents from lower income households were

[31] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, p. 24.

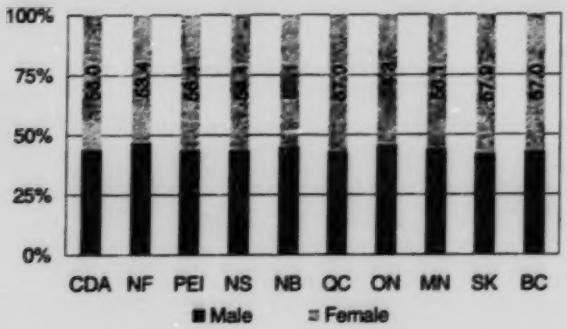
Participation by Gender

For the past twenty years, the participation and performance of female students within the post-secondary sector has been an area of concern; however, indicators now show significant improvement in this area. Nation-wide, women now comprise more than half of all college and university enrolments and graduates. In 1997, females received 58% of university diplomas and degrees, up from 53% a decade earlier.[29] Like the rest of Canada, women comprise more than 50% of students enrolled in credit programs at Alberta's publicly-funded post-secondary institutions. This percentage has remained relatively constant since 1994-95.

Alberta Student Composition by Gender, as a Percent of Total



Student Composition by Gender, as a Percent of Total, Canada and Other Provinces, 1998-99



Sources: Alberta Learning, Learner and Enrolment Reporting System; Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 52-53, 56-57, 58-59.

The most recent report of the Pan-Canadian Education Indicators Program now suggests that there is a need to monitor the progress of male students in some areas. Not only did Canada's male secondary students have weaker reading and writing scores on School Achievement Indicators Program tests than their female counterparts, but data on high school completion also show that male students are less likely to graduate. Between 1995 and 1998, among those aged 19 and 20, 84% of females had graduated from high school compared to 78% of males.[30]

---

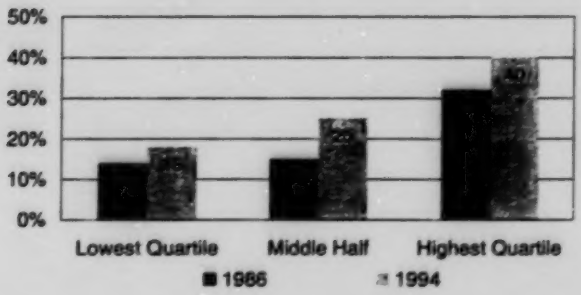
[29] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 5.

[30] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 5.

Participation by Socio-Economic Status

Throughout Canada, there continues to be a gap in university participation rates between persons from low and middle socio-economic status (SES) backgrounds. Although the percentage of 18 to 21-year-olds from each quartile has grown between 1986 and 1994, the disparity between the participation of the lowest quartile and the other quartiles has also increased. In 1986, results from Statistics Canada's *General Social Survey* showed no significant difference in participation rates among students from the lowest SES quartile and those in the middle two quartiles. By 1994, a gap of seven percentage points had opened up, with participation rates of 18% and 25% respectively, as the considerable increase in participation among those in the middle quartiles outpaced the increase among the lowest quartile. At 40%, those in the highest SES quartile continued to show by far the highest university participation rate.

Percentage of the Population Aged 18 to 21 Attending University, by Family Socio-economic Status, Canada



Note: Socio-economic status refers to an individual's or a family's relative position in society. In social research, it is operationally defined using variables such as educational attainment, occupation, income, or a combination thereof.

Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 106-107, 168.

Although Statistics Canada data are not available by province, Alberta Learning's recent *Post-Secondary Accessibility Study* has confirmed that the more affluent the household, the more likely respondents were to be enrolled in post-secondary studies. For example, 43% of respondents from households of less than $40,000 in total income were enrolled in post-secondary learning, increasing to 52% among those from middle-income households of $40,000 to $70,000, and to 63% among those from the most affluent households ($70,000 or more). However, of those students academically eligible to continue into post-secondary studies, there was no substantial difference between enrolment levels of students from low and high-income households.[31]

The accessibility study also indicates that although respondents from middle-income households were more likely than those from lower or higher income households to over-estimate post-secondary costs, respondents from lower income households were

[31] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, p. 24.

more likely to perceive post-secondary costs and tuition fees as barriers to post-secondary learning, and were less aware of available financing options.[32]

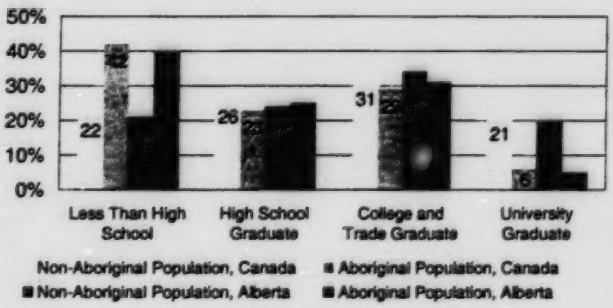
Substantial research has also linked socio-economic status to high school completion. Frequently SES and related factors are among the causes of early school leaving, including family income below recognized poverty level, low parent education levels, transient family patterns, working part-time jobs greater than 15 hours per week, weak family supports, family dysfunction, and social isolation.[33]

A segment of society particularly vulnerable to low income over an extended period is lone-parent families. Between 1993 and 1998 in Canada, 38% of people living in families headed by a lone parent experienced low income for four years or more, compared to 6% of people living in families composed of couples with children.[34] Since 1994, about 9% of Alberta's population has consisted of people living in lone parent families.[35]

Aboriginal Participation

At 6.1% of the total population, Alberta's aboriginal population is much higher than the Canadian average of 3.8%. In Alberta and across Canada, the educational attainment of the aboriginal population is well below that of the non-aboriginal population. The percentage of the aboriginal population aged 25 to 54 not completing high school in Canada is 42% compared to 22% for the non-aboriginal population. In Alberta, 40% of the aboriginal population aged 25 to 54 has less than a high school diploma, and only 5% has a university degree.

Distribution of Aboriginal and Non-Aboriginal Population Aged 25 to 54 by Highest Level of Education Attained, 1996



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 236-237.

The Council of Ministers of Education, Canada, recently noted that aboriginal people have historically faced many challenges in the predominantly non-aboriginal education systems, including language and cultural differences. Additionally, many aboriginal communities are geographically remote and have found it difficult to

---

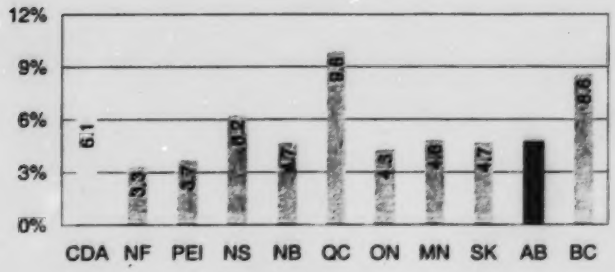
[32] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, pp. 12-13.

[33] Alberta Learning, System Improvement and Reporting Division.

[34] Statistics Canada, "Experiencing Low Income for Several Years," *Perspectives on Labour and Income*, March 2001, p. 7.

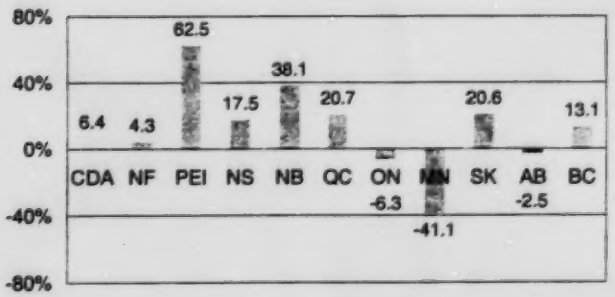
[35] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 180; *Annual Demographic Statistics, 1995*, Catalogue 91-213-XPB, p. 202.

Number of Foreign University Students, as a Percentage of Full-time University Students, 1998-99



Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 50-51, 118-119.

Percent Change in Number of Foreign University Students, 1994-95 to 1998-99



Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 118-119.

attract and retain well-qualified teachers for their schools. Poor achievement at the high school level impedes transition to the post-secondary level.[36] Transitional difficulties associated with cultural differences and geographic remoteness are compounded by socio-economic factors, since First Nations communities with the most favourable of circumstances share levels of socio-economic well-being similar only to those of the non-aboriginal populations in the poorest regions of Canada.[37]

International Participation

People are enriched by the input of their peers. The cultural mix of students at Alberta's post-secondary institutions impacts not only the learning environments of institutions, but also the global outlook of the province as graduates enter and participate in the workforce and broader society. In 1998-99, 4.7% of full-time university students in Alberta were foreign – a proportion that was comparable to most other provinces with the exception of Quebec, British Columbia and Nova Scotia. Between 1994-95 and 1998-99, the number of foreign students increased in most provinces with the exception of Manitoba and Alberta. However, at 2.5%, Alberta's decrease was marginal.

Infrastructure

It is expected that securing adequate human and physical resources will pose significant challenges to Alberta's publicly-funded post-secondary institutions.

---

[36] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 96-97.

[37] Statistics Canada, "Geographical Patterns of Socio-economic Well-being of First Nations Communities," *Rural and Small Town Canada Analysis Bulletin*, Vol. 1, No. 8, June 1999, p. 9.

more likely to perceive post-secondary costs and tuition fees as barriers to post-secondary learning, and were less aware of available financing options.[32]

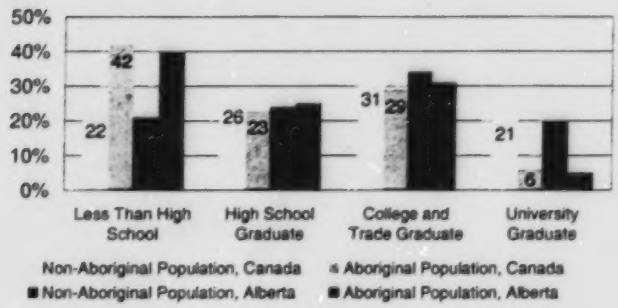
Substantial research has also linked socio-economic status to high school completion. Frequently SES and related factors are among the causes of early school leaving, including family income below recognized poverty level, low parent education levels, transient family patterns, working part-time jobs greater than 15 hours per week, weak family supports, family dysfunction, and social isolation.[33]

A segment of society particularly vulnerable to low income over an extended period is lone-parent families. Between 1993 and 1998 in Canada, 38% of people living in families headed by a lone parent experienced low income for four years or more, compared to 6% of people living in families composed of couples with children.[34] Since 1994, about 9% of Alberta's population has consisted of people living in lone parent families.[35]

Aboriginal Participation

At 6.1% of the total population, Alberta's aboriginal population is much higher than the Canadian average of 3.8%. In Alberta and across Canada, the educational attainment of the aboriginal population is well below that of the non-aboriginal population. The percentage of the aboriginal population aged 25 to 54 not completing high school in Canada is 42% compared to 22% for the non-aboriginal population. In Alberta, 40% of the aboriginal population aged 25 to 54 has less than a high school diploma, and only 5% has a university degree.

Distribution of Aboriginal and Non-Aboriginal Population Aged 25 to 54 by Highest Level of Education Attained, 1996



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 236-237.

The Council of Ministers of Education, Canada, recently noted that aboriginal people have historically faced many challenges in the predominantly non-aboriginal education systems, including language and cultural differences. Additionally, many aboriginal communities are geographically remote and have found it difficult to

---

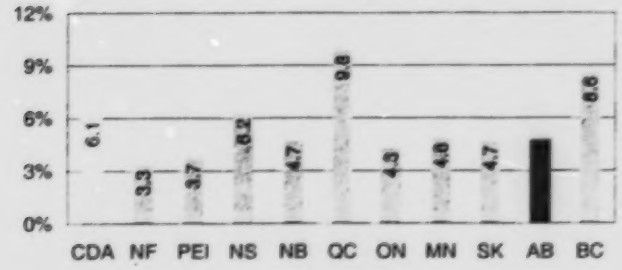
[32] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, pp. 12-13.

[33] Alberta Learning, System Improvement and Reporting Division.

[34] Statistics Canada, "Experiencing Low Income for Several Years," *Perspectives on Labour and Income*, March 2001, p. 7.

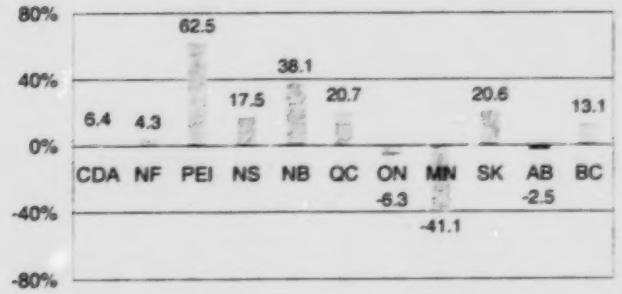
[35] Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 180; *Annual Demographic Statistics, 1995*, Catalogue 91-213-XPB, p. 202.

Number of Foreign University Students, as a Percentage of Full-time University Students, 1998-99



Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 50-51, 118-119.

Percent Change in Number of Foreign University Students, 1994-95 to 1998-99



Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 118-119.

attract and retain well-qualified teachers for their schools. Poor achievement at the high school level impedes transition to the post-secondary level.[36] Transitional difficulties associated with cultural differences and geographic remoteness are compounded by socio-economic factors, since First Nations communities with the most favourable of circumstances share levels of socio-economic well-being similar only to those of the non-aboriginal populations in the poorest regions of Canada.[37]

International Participation

People are enriched by the input of their peers. The cultural mix of students at Alberta's post-secondary institutions impacts not only the learning environments of institutions, but also the global outlook of the province as graduates enter and participate in the workforce and broader society. In 1998-99, 4.7% of full-time university students in Alberta were foreign – a proportion that was comparable to most other provinces with the exception of Quebec, British Columbia and Nova Scotia. Between 1994-95 and 1998-99, the number of foreign students increased in most provinces with the exception of Manitoba and Alberta. However, at 2.5%, Alberta's decrease was marginal.

Infrastructure

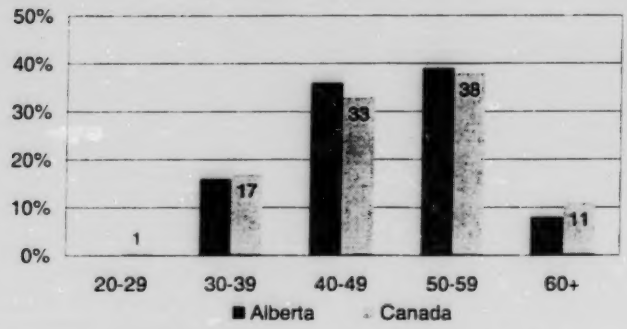
It is expected that securing adequate human and physical resources will pose significant challenges to Alberta's publicly-funded post-secondary institutions.

---

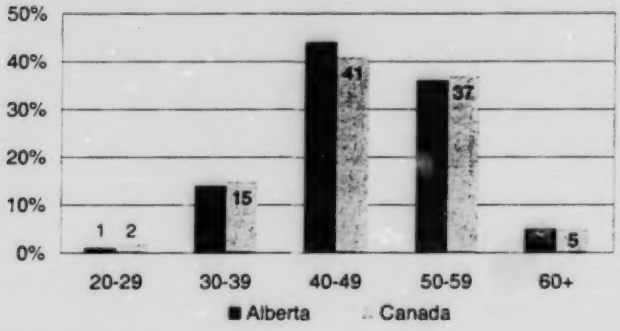
[36] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 96-97.

[37] Statistics Canada, "Geographical Patterns of Socio-economic Well-being of First Nations Communities," *Rural and Small Town Canada Analysis Bulletin*, Vol. 1, No. 8, June 1999, p. 9.

Distribution of Full-time University Educators by Age, 1996-97



Distribution of Full-time Community College Educators by Age, 1996-97



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 195-196.

Human Resources

There are more than 60,000 faculty members at universities and colleges throughout Canada. Generally, post-secondary faculty are older than the rest of the work force. Large cohorts currently aged 40-49 and 50 and over will be reaching retirement age in the next two decades. Therefore, the future demand for faculty is likely to increase as these individuals retire and institutions look for replacements.[38]

The issue of aging staff is most pronounced at the university level. The median age for full-time university faculty in 1996-97 was 49 years, up from 46 years a decade before. Professors hired during the rapid expansion period of the 1960s and early 1970s have begun to retire, and will continue to retire in greater numbers over the next ten years.[39] Alberta has higher levels of university faculty in the 40-49 and 50-59 age groups than Canada as a whole.

With a median age of 47 in 1996-97, community college educators in Canada are slightly younger than university educators.[40] While Alberta has a slightly lower proportion of college faculty aged 50-59 than the Canadian average, its proportion aged 40-49 is substantially higher. As the 40-49 and 50-59 age cohorts retire, Alberta's colleges will be looking to universities and other post-secondary institutions to provide the graduates required to fill vacant faculty positions.

---

[38] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 28.

[39] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 29.

[40] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 195.

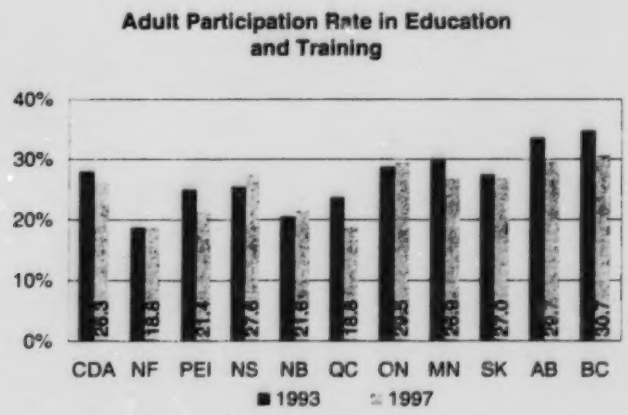
Difficulties associated with replacing aging faculty will be compounded by the "brain drain" of highly skilled Canadians in certain occupations to the United States. According to Statistics Canada, outflows in the public sector are greatest among people employed by universities and other educational institutions, hospitals and government.[41]

Physical Resources

In June 1998, the Alberta government reported the results of its study assessing the physical capacity of public post-secondary institutions in the province. The study found that the system as a whole was near its enrolment accommodation capability, with the capacity to accommodate enrolment increases existing primarily in rural institutions where lower growth was forecast. Key pressure points included office and library space, aging buildings, shortages of computer labs, computer-equipped study stations and student housing.[42] The current replacement value of Alberta's public post-secondary facilities is about $4.5 billion, and deferred maintenance on these facilities has been estimated at $1 billion. Deferred maintenance of this level severely affects the functionality of buildings.

Participation in Adult Education and Training Activities

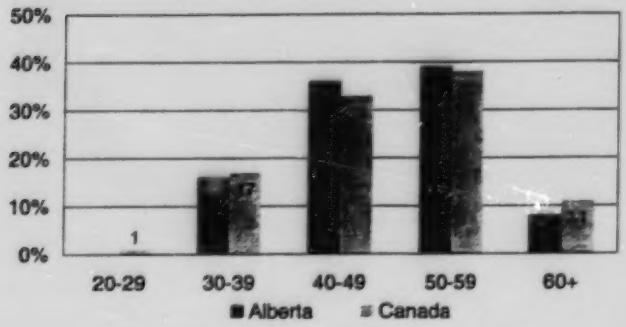
Adult education and training refers to any courses, lessons, seminars, workshops or other forms of structured learning taken by persons over the age of 17, not attending an educational institution on a full-time basis.[43] The learning can be either credit or non-credit in nature. In Alberta, adult education and training opportunities are provided through publicly-funded post-secondary institutions, Community Adult Learning Councils and other community programs, as well as non-profit organizations, employers, and other private entities. Throughout the mid 1990s, the proportion of Alberta's adult population enrolled in an education and training activity was among the



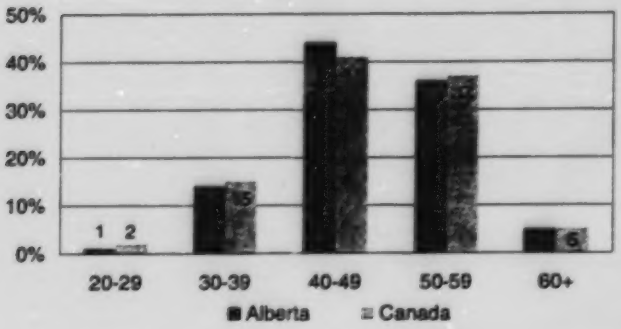
Sources: Statistics Canada, *Education in Canada, 1997*, Catalogue 81-229-XPB, p. 94; *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 94.

[41] Statistics Canada, "Brain Drain and Brain Gain: The Migration of Knowledge Workers from and to Canada," *Education Quarterly Review*, 2000, vol. 6, no. 3, pp. 8-35.
[42] Alberta Advanced Education and Career Development, *Facilities Accommodation Capability Study. Final Report*, June 1998.
[43] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 94.

Distribution of Full-time University Educators by Age, 1996-97



Distribution of Full-time Community College Educators by Age, 1996-97



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 195-196.

Human Resources

There are more than 60,000 faculty members at universities and colleges throughout Canada. Generally, post-secondary faculty are older than the rest of the work force. Large cohorts currently aged 40-49 and 50 and over will be reaching retirement age in the next two decades. Therefore, the future demand for faculty is likely to increase as these individuals retire and institutions look for replacements.[38]

The issue of aging staff is most pronounced at the university level. The median age for full-time university faculty in 1996-97 was 49 years, up from 46 years a decade before. Professors hired during the rapid expansion period of the 1960s and early 1970s have begun to retire, and will continue to retire in greater numbers over the next ten years.[39] Alberta has higher levels of university faculty in the 40-49 and 50-59 age groups than Canada as a whole.

With a median age of 47 in 1996-97, community college educators in Canada are slightly younger than university educators.[40] While Alberta has a slightly lower proportion of college faculty aged 50-59 than the Canadian average, its proportion aged 40-49 is substantially higher. As the 40-49 and 50-59 age cohorts retire, Alberta's colleges will be looking to universities and other post-secondary institutions to provide the graduates required to fill vacant faculty positions.

---

[38] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 28.
[39] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 29.
[40] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 195.

Difficulties associated with replacing aging faculty will be compounded by the "brain drain" of highly skilled Canadians in certain occupations to the United States. According to Statistics Canada, outflows in the public sector are greatest among people employed by universities and other educational institutions, hospitals and government.[41]

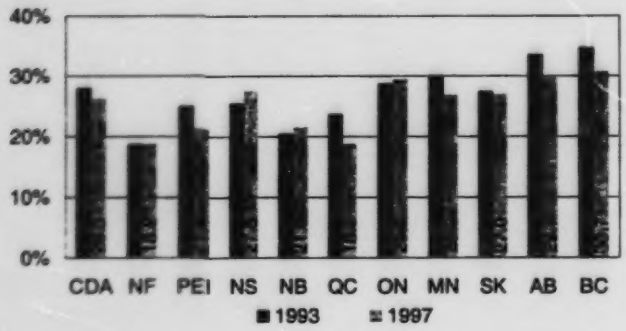
Physical Resources

In June 1998, the Alberta government reported the results of its study assessing the physical capacity of public post-secondary institutions in the province. The study found that the system as a whole was near its enrolment accommodation capability, with the capacity to accommodate enrolment increases existing primarily in rural institutions where lower growth was forecast. Key pressure points included office and library space, aging buildings, shortages of computer labs, computer-equipped study stations and student housing.[42] The current replacement value of Alberta's public post-secondary facilities is about $4.5 billion, and deferred maintenance on these facilities has been estimated at $1 billion. Deferred maintenance of this level severely affects the functionality of buildings.

Participation in Adult Education and Training Activities

Adult education and training refers to any courses, lessons, seminars, workshops or other forms of structured learning taken by persons over the age of 17, not attending an educational institution on a full-time basis.[43] The learning can be either credit or non-credit in nature. In Alberta, adult education and training opportunities are provided through publicly-funded post-secondary institutions, Community Adult Learning Councils and other community programs, as well as non-profit organizations, employers, and other private entities. Throughout the mid 1990s, the proportion of Alberta's adult population enrolled in an education and training activity was among the

Adult Participation Rate in Education and Training



Sources: Statistics Canada, *Education in Canada, 1997*, Catalogue 81-229-XPB, p. 94; *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 94.

[41] Statistics Canada, "Brain Drain and Brain Gain: The Migration of Knowledge Workers from and to Canada," *Education Quarterly Review*, 2000, vol. 6, no. 3, pp. 8-35.
[42] Alberta Advanced Education and Career Development, *Facilities Accommodation Capability Study, Final Report*, June 1998.
[43] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 94.

highest in Canada. At 33.5% in 1993 and 29.7% in 1997, Alberta's participation rate was second only to British Columbia, and well above the respective Canadian averages of 28% and 26.3%.

A recent federal study has indicated that Canadian adults participate in structured education and training activities as a means of staying competitive on the job market. In 1997, three out of four participants took at least one course or program for job-related purposes, while only one in three took a course or program for personal development or leisure. Although participation rates in adult education and training activities across Canada declined during the 1990s, the average number of hours spent on continuing education activities per participant rose from 149 hours in 1991 to 209 hours in 1997. Lack of time and costs were reported as major barriers by adults who wanted to take an education and training activity but did not; however, the decline in participation rates over the last decade suggests there may also be reduced demand.[44]

Participation in Private Vocational Schools

Since 1995-96, the number of students participating in licensed private vocational programs in Alberta has remained relatively constant. Since owners of private institutions make business decisions to provide vocational training based on industry requirements and labour market demand, programs tend to be discontinued when the labour market demand diminishes. There has also been a trend in the private vocational sector to provide longer and more comprehensive programs.

Student Headcount, Licensed Private Vocational Programs

1995-96	1996-97	1997-98	1998-99
15,764	16,164	14,259	15,015

Source: Alberta Learning, Adult Learning Division, Private Institutions Branch.

[44] Statistics Canada and Human Resources Development Canada, *A Report on Adult Education and Training in Canada: Learning a Living*, May 2001, Catalogue 81-586-XPE, pp. 1, 3, 13, 32.

Key Points

- Since 1994-95, Alberta's population has grown faster than the national average, and enrolment in credit programs at Alberta's publicly-funded post-secondary institutions has grown faster than the provincial population.
- The majority of enrolment growth has occurred at institutions located in the province's larger urban centers. An exception to the general growth pattern was the large increase in enrolment at Athabasca University, a distance education provider.
- Population growth will create pressures for Alberta's post-secondary institutions, particularly in the larger urban centers.
- Alberta's post-secondary enrolment is expected to be driven in large part by the echo boom population, however, there may also be pressure to accommodate mature learners. Additional pressures could result from changes in the economy and workplace environment.
- Alberta is facing a shortage of skilled workers. The severest shortfalls are in construction; professional, scientific and technical services; health care; social assistance; and public administration – all areas that require technical and apprenticeship trades training, or college/university education.
- Full-time youth participation in university education in Alberta has declined, but part-time participation has increased. Full-time youth participation in college education in Alberta has flattened, but the popularity of university transfer programs is growing.
- The flattening in full-time college and university participation among Alberta's youths is a trend that may warrant concern. Completion of high school is a critical component in making the transition to higher education and training. Although the high school completion rate of Alberta's population aged 19 to 20 has improved since 1991, its current rate is below the Canadian average and substantially below many of the other provinces. Rates of high school completion in Alberta improve by ages 25 to 34.
- Part-time enrolment in general has increased in Alberta since the mid 1990s, while Canada as a whole has experienced a decline. Between 1994-95 and 1999-00, Alberta had the highest growth in part-time university enrolment in Canada, at 56.3%.
- Alberta was one of only two provinces in Canada to experience significant increases in full-time university enrolment between 1994-95 and 1999-00. Additionally, Alberta's rate of growth in full-time college enrolment between 1994-95 and 1998-99 was the largest in the country at 17%.
- There has been significant improvement in the participation of female students. In Alberta and across Canada women now comprise more than half of all college and university enrolments and graduates. Indicators now suggest that there is a need to monitor the progress of male students in some areas.
- In Alberta and throughout Canada, there continues to be a gap in university participation rates between persons from low and middle socio-economic status backgrounds. However, of those students academically eligible to continue into

post-secondary studies, there was no substantial difference between enrolment levels of students from low and high-income households.

- The educational attainment of the aboriginal population in Alberta and Canada is well below that of the non-aboriginal population.
- Adults participate in education and training as a means of staying competitive on the job market. Throughout the mid-90s, the proportion of Alberta's adult population enrolled in an education and training activity was among the highest in Canada.
- Although lack of time and costs were seen as major barriers by adults who wanted to take an education and training activity but did not, the decline in participation rates over the last decade suggests there may also be a reduced demand for additional training.
- The level of participation in private vocational schools has remained relatively constant since 1995-96. However, there is a trend to provide longer and more comprehensive programs.

Affordability

The learning system is affordable and financial need is not a barrier to learners participating in learning opportunities.

Given the benefits that both the individual and society obtain from a quality, accessible adult learning system, contributions to the cost of this system are a shared responsibility. Affordability has two primary dimensions – affordability to the taxpayer and affordability to the learner. Alberta Learning's business plan balances costs between taxpayers and learners by ensuring that the adult learning system is affordable and that financial need is not a barrier to learners.

Overview

Alberta's adult learning system provides both credit and non-credit learning opportunities to adult learners. Credit opportunities can be categorized into programs subject to the Tuition Fee Policy and programs exempt from the Policy. There are five delivery arrangements for exempt credit activity: apprenticeship and industry training programs, programs offered at private university colleges, programs offered at the Banff Centre, off-campus activity and third-party contracts.

Alberta Learning provides operating funds to support the delivery of credit programs subject to the Tuition Fee Policy. Alberta Learning also provides operating funds for three of the five exempt arrangements – apprenticeship and industry training, private university colleges and the Banff Centre. In addition to funding from Alberta Learning, credit program activity is also supported by Alberta Infrastructure through grants for infrastructure renewal and development.

Most off-campus programs, all third-party contracts and all non-credit activity (at post-secondary institutions) do not receive provincial government funding. However, provincial government funding is made available for non-credit programs and services offered through community programs.

Students and their families make a direct financial contribution to the costs of their post-secondary education through the payment of tuition and other student fees. The Alberta government regulates these fees through legislation and the Tuition Fee Policy. The objective of the Tuition Fee Policy is to ensure that students make a reasonable contribution to the costs of their post-secondary education given the benefits they receive.

Total Societal Spending on Post-Secondary Education

Total societal spending on post-secondary education includes public expenditures by local, provincial and federal governments as well as private expenditures by students and their families, individuals, businesses and industry. Public expenditures include operating grants to institutions, infrastructure grants, scholarships, student loan costs, apprenticeship training costs and funding for sponsored research. Private

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

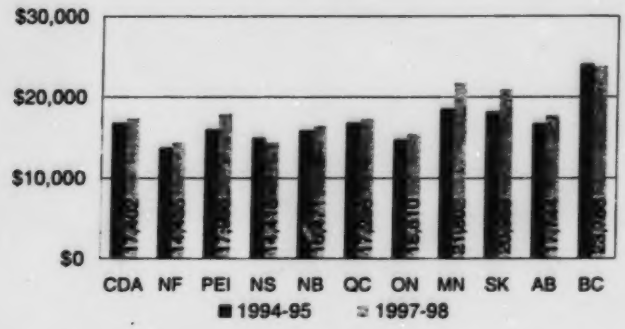
LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

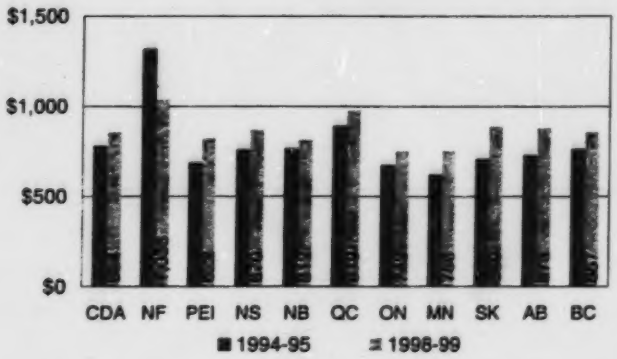
Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

Total Spending per University and College Full-time Student



Total Post-secondary Spending Per Capita



Sources: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 20-21, 52-59, 180-181; Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 21.

expenditures include tuition fees, third-party contracts, funding for sponsored research, and gifts and donations.[45]

Alberta's total societal spending per full-time student (excluding trade students) increased from $16,697 in 1994-95 to $17,744 in 1997-98, an increase of 6.3%. Alberta's total societal spending compares favorably to other Canadian jurisdictions – even more so if consideration is given to Alberta's lower cost of living.

However, the data reflect spending on full-time students only. Between 1994-95 and 1998-99 Alberta experienced one of the highest rates of growth in part-time enrolment in Canada. If part-time enrolment data were considered, Alberta's total spending per full-time equivalent student would likely decrease relative to other jurisdictions. Part-time enrolment data exists across Canada but is available on a headcount basis only. There is no comparable measure of full-load equivalency across Canada.

Alberta's total per capita spending on post-secondary education (including spending on apprenticeship trades, college and university students) increased from $729 in 1994-95 to $878 in 1998-99, an increase of 20.4%. Increases were also observed in other provinces and for Canada overall. Alberta is now fourth among Canadian provinces for total per capita spending on post-secondary education (behind Saskatchewan, Quebec and Newfoundland).

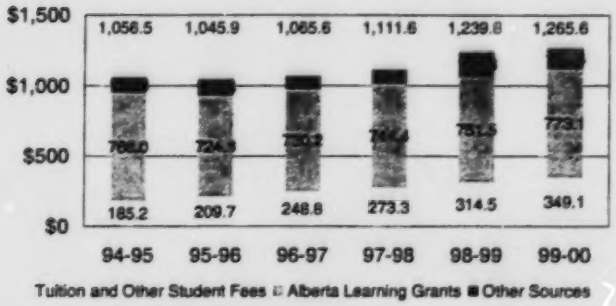
[45] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 201.

Funding Provided Directly to the Adult Learning System

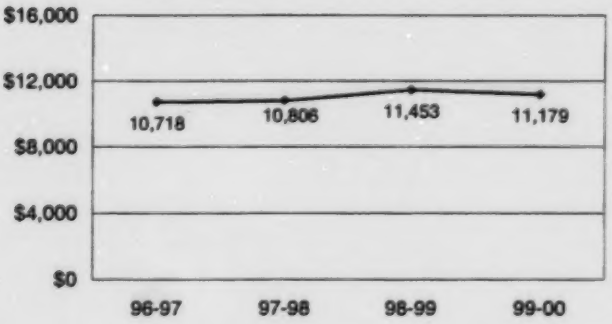
Credit Programs Subject to the Tuition Fee Policy

In 1994-95, Alberta Learning provided Alberta's publicly-funded post-secondary institutions with $766.0 million to support credit programs subject to the Tuition Fee Policy. In 1995-96, this amount decreased to $724.8 million but increased in every subsequent year, rising to $773.1 million in 1999-00. Total net operating expenditures (expenditures associated with instruction of credit programs subject to the Tuition Fee Policy) show a similar trend, increasing from a low of $1,045.9 million in 1995-96 to a high of $1,265.6 million in 1999-00.

Net Operating Expenditures for Credit Programs Subject to the Tuition Fee Policy (millions of dollars)



Net Operating Expenditures per Full Load Equivalent Student (in constant 1996 dollars)



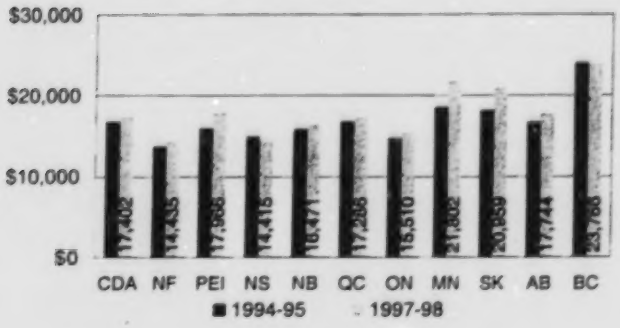
Note: Alberta Learning does not have comparable data prior to 1996-97. Data exclude grants and enrolments for Banff Centre, apprenticeship programs and private university colleges. Third party contracts and off campus enrolments are also excluded.

Sources: Alberta Learning, Financial Information Reporting System and Learner and Enrolment Reporting System.

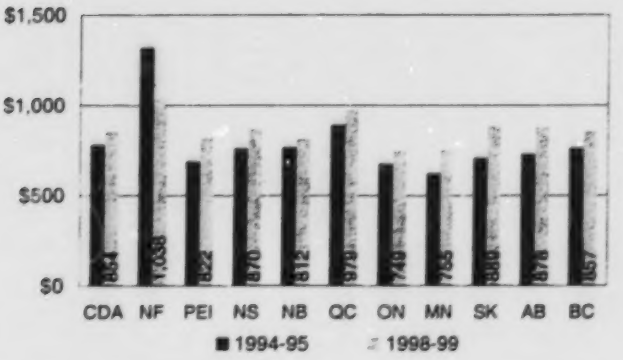
Increases in total net operating expenditures have not always kept pace with increases in enrolment and inflation. Total net operating expenditures (in constant 1996 dollars) increased between 1996-97 and 1998-99, but dropped in 1999-00. This decrease was partly the result of significant enrolment growth between 1998-99 and 1999-00. During this period, enrolment increased from 115,084 to 119,574 FLEs.

Relative to total net operating expenditures, Alberta Learning's contribution to credit programs subject to the Tuition Fee Policy declined between 1994-95 and 1998-99 but increased slightly in 1999-00. Between 1994-95 and 1999-00, operating grants as a percentage of net operating expenditures decreased from 72.5% to 61.1%. Despite this decrease, Alberta Learning still provides the majority of operating funds to support credit program activity at Alberta's publicly-funded post-secondary institutions.

Total Spending per University and College Full-time Student



Total Post-secondary Spending Per Capita



Sources: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 20-21, 52-59, 180-181; Statistics Canada, *Annual Demographic Statistics, 2000*, Catalogue 91-213-XPB, p. 21.

expenditures include tuition fees, third-party contracts, funding for sponsored research, and gifts and donations.[45]

Alberta's total societal spending per full-time student (excluding trade students) increased from $16,697 in 1994-95 to $17,744 in 1997-98, an increase of 6.3%. Alberta's total societal spending compares favorably to other Canadian jurisdictions – even more so if consideration is given to Alberta's lower cost of living.

However, the data reflect spending on full-time students only. Between 1994-95 and 1998-99 Alberta experienced one of the highest rates of growth in part-time enrolment in Canada. If part-time enrolment data were considered, Alberta's total spending per full-time equivalent student would likely decrease relative to other jurisdictions. Part-time enrolment data exists across Canada but is available on a headcount basis only. There is no comparable measure of full-load equivalency across Canada.

Alberta's total per capita spending on post-secondary education (including spending on apprenticeship trades, college and university students) increased from $729 in 1994-95 to $878 in 1998-99, an increase of 20.4%. Increases were also observed in other provinces and for Canada overall. Alberta is now fourth among Canadian provinces for total per capita spending on post-secondary education (behind Saskatchewan, Quebec and Newfoundland).

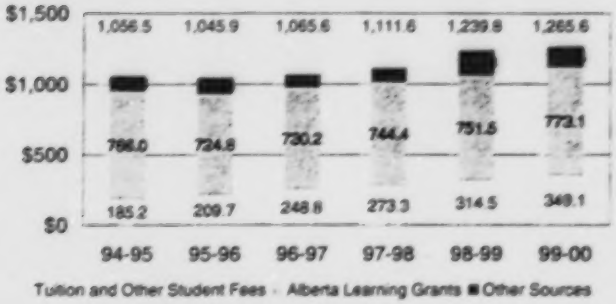
[45] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 201.

Funding Provided Directly to the Adult Learning System

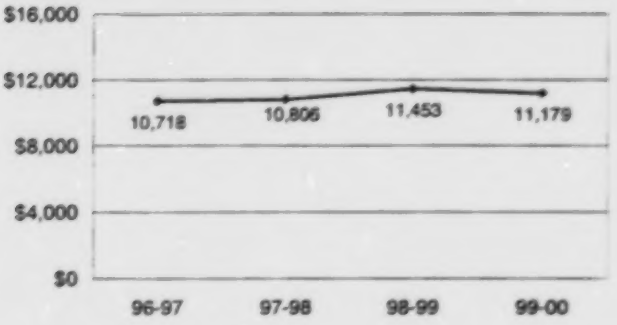
Credit Programs Subject to the Tuition Fee Policy

In 1994-95, Alberta Learning provided Alberta's publicly-funded post-secondary institutions with $766.0 million to support credit programs subject to the Tuition Fee Policy. In 1995-96, this amount decreased to $724.8 million but increased in every subsequent year, rising to $773.1 million in 1999-00. Total net operating expenditures (expenditures associated with instruction of credit programs subject to the Tuition Fee Policy) show a similar trend, increasing from a low of $1,045.9 million in 1995-96 to a high of $1,265.6 million in 1999-00.

Net Operating Expenditures for Credit Programs Subject to the Tuition Fee Policy (millions of dollars)



Net Operating Expenditures per Full Load Equivalent Student (in constant 1996 dollars)



Note: Alberta Learning does not have comparable data prior to 1996-97. Data exclude grants and enrolments for Banff Centre, apprenticeship programs and private university colleges. Third party contracts and off campus enrolments are also excluded.

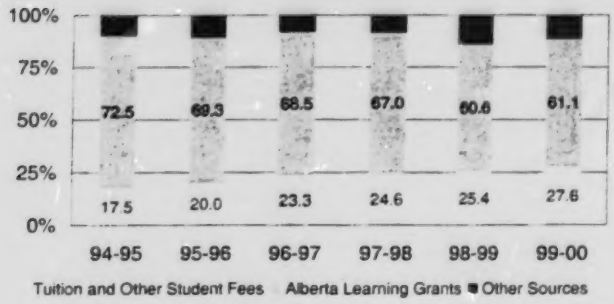
Sources: Alberta Learning, Financial Information Reporting System and Learner and Enrolment Reporting System.

Increases in total net operating expenditures have not always kept pace with increases in enrolment and inflation. Total net operating expenditures (in constant 1996 dollars) increased between 1996-97 and 1998-99, but dropped in 1999-00. This decrease was partly the result of significant enrolment growth between 1998-99 and 1999-00. During this period, enrolment increased from 115,084 to 119,574 FLEs.

Relative to total net operating expenditures, Alberta Learning's contribution to credit programs subject to the Tuition Fee Policy declined between 1994-95 and 1998-99 but increased slightly in 1999-00. Between 1994-95 and 1999-00, operating grants as a percentage of net operating expenditures decreased from 72.5% to 61.1%. Despite this decrease, Alberta Learning still provides the majority of operating funds to support credit program activity at Alberta's publicly-funded post-secondary institutions.

Between 1994-95 and 1999-00, the contribution of students and their families to the costs of post-secondary education have increased. In 1994-95, tuition and other student fees provided Alberta's post-secondary institutions with revenue of $185.2 million. In 1999-00 this amount had increased to $349.1 million. As a percentage of total net operating expenditures, tuition and other student fees have increased from 17.5% in 1994-95 to 27.6% in 1999-00.

Sources of Funding for Credit Programs Subject to the Tuition Fee Policy as a Percentage of Net Operating Expenditures



Source: Alberta Learning, Financial Information Reporting System.

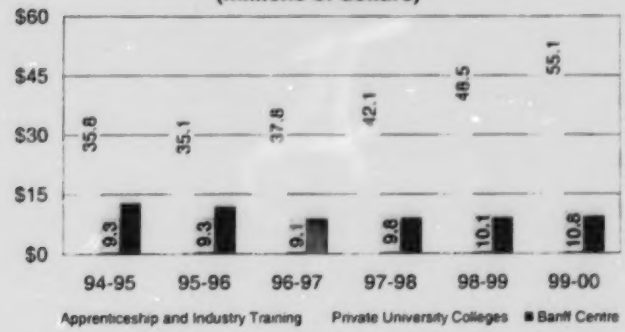
The decrease in government funding of credit program activity and increase in funding from student sources is largely attributable to implementation of the province's financial restructuring program of the 1990s, including revisions to the Tuition Fee Policy and implementation of the policy framework *New Directions for Adult Learning in Alberta*. The policy framework was designed to increase student and private sector investment in the post-secondary system to more appropriately reflect the relative returns.

In all other provinces, students have also contributed more toward the costs of post-secondary education. Between 1994-95 and 1998-99 average tuition fees for undergraduate arts programs increased in every province – rising 29.1% percent in Alberta, 48.4% in Ontario, 27.1% in Quebec and 6.7% in British Columbia. For Canada overall, the increase was 35.5%.[46] Alberta's fees are now among the highest in Canada but are comparable to many other provinces. In 1999-00 (most recent year available), over 60% of Canada's full-time university students paid undergraduate arts tuition fees that were within 10% of Alberta's fees.[47] However, post-secondary education in Quebec is more heavily subsidized than other provinces – if Quebec is excluded then over 80% of Canada's full-time university students paid fees within 10% of Alberta's.

In addition to revenue from Alberta Learning and student sources, Alberta's public institutions also receive funding from Alberta Infrastructure for infrastructure renewal and development projects. This funding varies from year to year depending on provincial finances and budget priorities. Between 1994-95 and 1999-00 over $189

[46] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February, 2000, p. 214.
[47] Statistics Canada, *The Daily*, August 28, 2000, p. 5; November 8, 2001, p. 3.

Alberta Learning Grants for Credit Programs Exempt from the Tuition Fee Policy (millions of dollars)



Note: Apprenticeship and Industry Training figures are for expenditures. Alberta Learning base operations grants do not distinguish between funds for apprenticeship and funds for credit programs subject to the Tuition Fee Policy.

Source: Alberta Learning, Financial Information Reporting System.

million in infrastructure funding was provided to support credit program activity at Alberta's public post-secondary institutions.[48]

Credit Programs Exempt from the Tuition Fee Policy

In addition to funding credit programs subject to the Tuition Fee Policy, Alberta Learning also provides funding for the technical training component of apprenticeship and industry training, select programs offered at private university colleges, and programs offered through the Banff Centre. Between 1994-95 and 1999-00 total support for these programs has fluctuated from a low of $55.7 million in 1996-97 to a high of $75.3 million in 1999-00.

Community Programs

Alberta Learning provides operating funds to Alberta's community programs to support the delivery of non-credit programs. These programs and services receive additional support through grants obtained from the federal government. Total Alberta Learning funding of community programs has remained relatively constant in recent years, averaging $6.3 million between 1997-98 and 2000-01.[49] Community programs also offer general interest courses in communities where a specific interest is expressed. These courses are not funded by either the provincial or federal governments and rely on revenues obtained through student fees.

Programs Funded Through Non-Government Sources

Off-campus and Third-party Contract Credit Programs

Adult learners living in regions of Alberta not directly served by a post-secondary institution have access to credit-learning opportunities through off-campus credit programs. Select off-campus credit programs are funded by Alberta Learning – particularly those offered through Athabasca University. Other off-campus credit programs are exempt from the Tuition Fee Policy and as such, revenue from these programs comes primarily from tuition and other student fees.

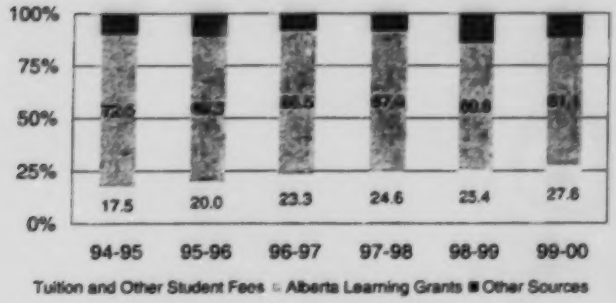
---

[48] Alberta Learning, Financial Information Reporting System.

[49] Alberta Learning, Adult Learning Division, Community Programs Branch.

Between 1994-95 and 1999-00, the contribution of students and their families to the costs of post-secondary education have increased. In 1994-95, tuition and other student fees provided Alberta's post-secondary institutions with revenue of $185.2 million. In 1999-00 this amount had increased to $349.1 million. As a percentage of total net operating expenditures, tuition and other student fees have increased from 17.5% in 1994-95 to 27.6% in 1999-00.

Sources of Funding for Credit Programs Subject to the Tuition Fee Policy as a Percentage of Net Operating Expenditures



Source: Alberta Learning, Financial Information Reporting System.

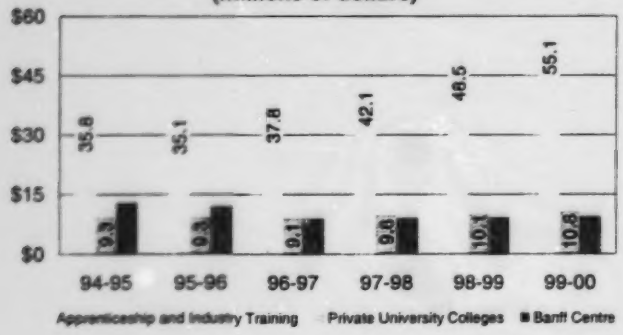
The decrease in government funding of credit program activity and increase in funding from student sources is largely attributable to implementation of the province's financial restructuring program of the 1990s, including revisions to the Tuition Fee Policy and implementation of the policy framework *New Directions for Adult Learning in Alberta*. The policy framework was designed to increase student and private sector investment in the post-secondary system to more appropriately reflect the relative returns.

In all other provinces, students have also contributed more toward the costs of post-secondary education. Between 1994-95 and 1998-99 average tuition fees for undergraduate arts programs increased in every province – rising 29.1% percent in Alberta, 48.4% in Ontario, 27.1% in Quebec and 6.7% in British Columbia. For Canada overall, the increase was 35.5%.[46] Alberta's fees are now among the highest in Canada but are comparable to many other provinces. In 1999-00 (most recent year available), over 60% of Canada's full-time university students paid undergraduate arts tuition fees that were within 10% of Alberta's fees.[47] However, post-secondary education in Quebec is more heavily subsidized than other provinces – if Quebec is excluded then over 80% of Canada's full-time university students paid fees within 10% of Alberta's.

In addition to revenue from Alberta Learning and student sources, Alberta's public institutions also receive funding from Alberta Infrastructure for infrastructure renewal and development projects. This funding varies from year to year depending on provincial finances and budget priorities. Between 1994-95 and 1999-00 over $189

[46] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February, 2000, p. 214.
[47] Statistics Canada, *The Daily*, August 28, 2000, p. 5; November 8, 2001, p. 3.

Alberta Learning Grants for Credit Programs Exempt from the Tuition Fee Policy (millions of dollars)



Note: Apprenticeship and Industry Training figures are for expenditures. Alberta Learning base operations grants do not distinguish between funds for apprenticeship and funds for credit programs subject to the Tuition Fee Policy.

Source: Alberta Learning, Financial Information Reporting System.

million in infrastructure funding was provided to support credit program activity at Alberta's public post-secondary institutions.[48]

Credit Programs Exempt from the Tuition Fee Policy

In addition to funding credit programs subject to the Tuition Fee Policy, Alberta Learning also provides funding for the technical training component of apprenticeship and industry training, select programs offered at private university colleges, and programs offered through the Banff Centre. Between 1994-95 and 1999-00 total support for these programs has fluctuated from a low of $55.7 million in 1996-97 to a high of $75.3 million in 1999-00.

Community Programs

Alberta Learning provides operating funds to Alberta's community programs to support the delivery of non-credit programs. These programs and services receive additional support through grants obtained from the federal government. Total Alberta Learning funding of community programs has remained relatively constant in recent years, averaging $6.3 million between 1997-98 and 2000-01.[49] Community programs also offer general interest courses in communities where a specific interest is expressed. These courses are not funded by either the provincial or federal governments and rely on revenues obtained through student fees.

Programs Funded Through Non-Government Sources

Off-campus and Third-party Contract Credit Programs

Adult learners living in regions of Alberta not directly served by a post-secondary institution have access to credit-learning opportunities through off-campus credit programs. Select off-campus credit programs are funded by Alberta Learning – particularly those offered through Athabasca University. Other off-campus credit programs are exempt from the Tuition Fee Policy and as such, revenue from these programs comes primarily from tuition and other student fees.

---

[48] Alberta Learning, Financial Information Reporting System.

[49] Alberta Learning, Adult Learning Division, Community Programs Branch.

Third-party contracts are contractual arrangements between a post-secondary institution and an organization (typically a government, public or private organization) to provide credit programming to individuals or groups belonging to that organization. Revenue from this activity has been rising in recent years as organizations recognize the need to update the skills of their employees and provide job-related training opportunities. Average annual revenue from off-campus and third-party contract credit programs was just under $20.0 million between 1994-95 and 1999-00, ranging from a low of $12.7 million in 1995-96 to a high of $32.2 million in 1999-00.[50]

Non-credit Programs

Non-credit programs offered at Alberta's publicly-funded post-secondary institutions cover a wide spectrum of learning opportunities including job-related, general interest, leisure and personal development courses and programs. Funding of non-credit activity is the primary responsibility of students. Average annual revenue from non-credit program activity at Alberta's publicly-funded post-secondary institutions was $97.0 million between 1994-95 and 1999-00.[51]

Funding Provided to Students

Both the provincial and federal governments provide Alberta's adult learners with financial assistance based on need as well as achievement. Financial assistance is available to eligible students in approved programs offered through both public and private providers. Grants (needs-based) and scholarships (achievement-based) differ from student loans (needs-based) in that they do not have to be repaid by the student. Although loans are repaid, government incurs substantial costs to support this program including interest payments made on behalf of the student while they are in school, as well as costs related to loan remission and other payment relief programs.

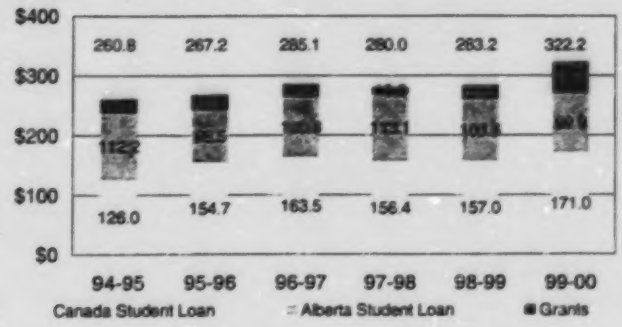
Total Student Financial Assistance

The total amount of needs-based financial assistance provided to Alberta's adult learners has grown significantly in recent years – increasing from $260.8 million in 1994-95 to $322.2 million in 1999-00. Similarly, achievement-based funding provided through Alberta's Heritage Scholarship program has increased from $12.5 million in 1994-95 to $19.0 million in 1999-00. The total number of students receiving both need and achievement-based financial assistance has remained relatively steady at around 45,000 students per year, representing approximately 50% of annual full-time student enrolment. Student loan awards and grants have increased to accommodate the rising costs of post-secondary education.

---

[50] Alberta Learning, Financial Information Reporting System.
[51] Alberta Learning, Financial Information Reporting System.

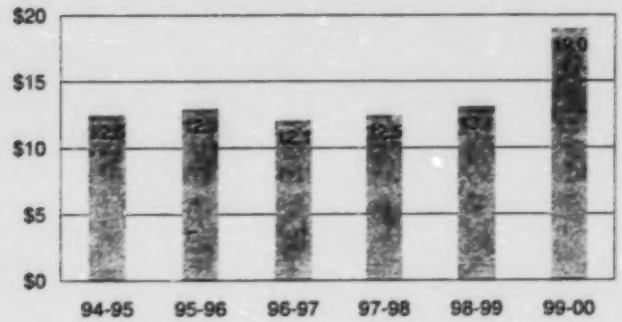
Total Needs-based Student Financial Assistance Awarded (millions of dollars)



Note: Skills Development Training Grants were included in the total assistance figures reported in the 1995 and 1996 Alberta Students Finance Board annual reports. These grant amounts have been removed from the total assistance figures in this graph for consistency with subsequent years.

Sources: Alberta Students Finance Board, Annual Reports, 1995 to 1998; Learner Funding Branch, Adult Learning Division.

Total Scholarships Awarded (millions of dollars)



Sources: Alberta Students Finance Board, Annual Reports, 1995 to 1997; Alberta Learning, *Results Report 2000/2001*, p. 37.

In addition to growth in the amount of student financial assistance awarded each year, there have been changes to the composition of these funds. In 1994-95, Alberta Student Loan and Canada Student Loan programs comprised 91.3% of total needs-based financial assistance but by 1999-00 this amount had declined to 84.1%. The increase in non-repayable forms of financial assistance is largely attributable to implementation of the Canada Millennium Grant program in 1999-00. This program provided $26.6 million in non-repayable financial assistance to 8,800 Alberta adult learners in 1999-00.[52]

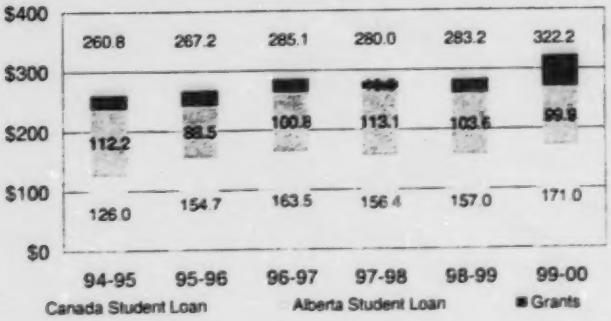
The Alberta student assistance program reflects the principle that the cost of education is a shared responsibility among students and their families; a principle that is common to all student assistance programs within Canada. Parents and family are expected to contribute toward the cost of their child's tuition and other education-related expenses. However, research indicates that parents may not be fully aware of this shared responsibility principle. A recent Statistics Canada survey indicates that although the vast majority of Canadian parents want their children to obtain some form of post-secondary education, over half of these parents have not put savings aside specifically for this purpose.[53] The survey also indicates that for those parents who have put savings aside, the amount saved is substantially lower than the cost of attending.

---

[52] Alberta Learning, Learner Services Branch, Heritage Scholarship Unit.

[53] Statistics Canada, "Survey of Approaches to Educational Planning, 1999," *The Daily*, April 10, 2001, pp. 2-5.

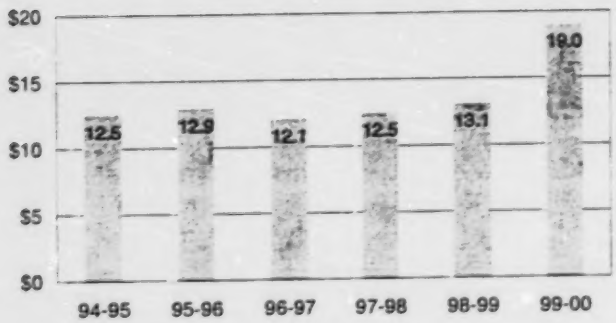
Total Needs-based Student Financial Assistance Awarded (millions of dollars)



Note: Skills Development Training Grants were included in the total assistance figures reported in the 1995 and 1996 Alberta Students Finance Board annual reports. These grant amounts have been removed from the total assistance figures in this graph for consistency with subsequent years.

Sources: Alberta Students Finance Board, Annual Reports, 1995 to 1998; Learner Funding Branch, Adult Learning Division.

Total Scholarships Awarded (millions of dollars)



Sources: Alberta Students Finance Board, Annual Reports, 1995 to 1997; Alberta Learning, *Results Report 2000/2001*, p. 37.

In addition to growth in the amount of student financial assistance awarded each year, there have been changes to the composition of these funds. In 1994-95, Alberta Student Loan and Canada Student Loan programs comprised 91.3% of total needs-based financial assistance but by 1999-00 this amount had declined to 84.1%. The increase in non-repayable forms of financial assistance is largely attributable to implementation of the Canada Millennium Grant program in 1999-00. This program provided $26.6 million in non-repayable financial assistance to 8,800 Alberta adult learners in 1999-00.[52]

The Alberta student assistance program reflects the principle that the cost of education is a shared responsibility among students and their families; a principle that is common to all student assistance programs within Canada. Parents and family are expected to contribute toward the cost of their child's tuition and other education-related expenses. However, research indicates that parents may not be fully aware of this shared responsibility principle. A recent Statistics Canada survey indicates that although the vast majority of Canadian parents want their children to obtain some form of post-secondary education, over half of these parents have not put savings aside specifically for this purpose.[53] The survey also indicates that for those parents who have put savings aside, the amount saved is substantially lower than the cost of attending.

---

[52] Alberta Learning, Learner Services Branch, Heritage Scholarship Unit.

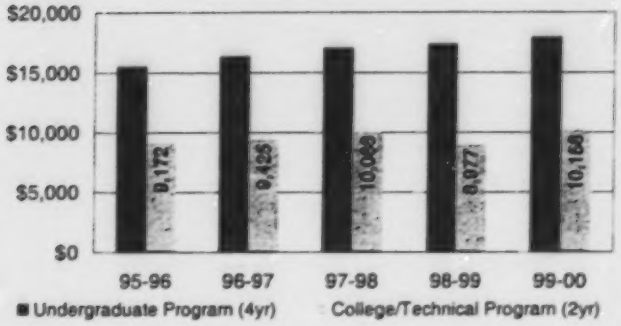
[53] Statistics Canada, "Survey of Approaches to Educational Planning, 1999," *The Daily*, April 10, 2001, pp. 2-5.

Student Debt

Although increases in non-repayable forms of financial assistance have helped reduce student debt load, the net debt level of Alberta's post-secondary graduates increased between 1995-96 and 1999-00. This increase was expected given the policy direction to increase students' contributions to the costs of their education.

For university undergraduate programs, average net debt increased from $15,518 to $17,942 between 1995-96 and 1999-00, an increase of 15.6%. For technical institute and college programs, average net debt increased from $9,172 to $10,158, an increase of 10.8%. The increase in average net debt at graduation for both two and four year programs is partially attributable to increases in tuition fees and general costs of living – pressures that were addressed through increases to total loan limits and living allowance levels.

Average Net Debt of Alberta Graduates by Program



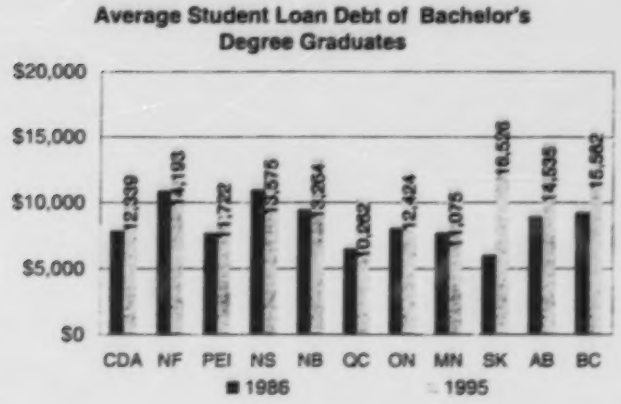
Note: Comparable debt data not available for 1994-95.
Sources: Alberta Advanced Education and Career Development, *1998/99 Annual Report*, p. 45; Alberta Learning, *Annual Report 1999/2000*, p. 213.

There are a number of debt reduction and payment relief programs in place to help Alberta's adult learners repay their student loans. These programs include loan remission (provincial), interest relief (provincial), extended interest relief (federal) and loan debt reduction (federal). Net debt levels of Alberta's post-secondary graduates reflect the decrease in gross debt resulting from loan remission amounts.

Alberta Learning's new student loan relief program, implemented in August 2001, is providing adult learners with additional student loan remission. Students who have combined provincial and federal student loans above $5,000 per academic year or $2,500 per semester (obtained after August 1, 2001) will have any Alberta Student Loan amount above this level automatically relieved upon confirmation of intention to graduate. The new automatic relief program is expected to provide Alberta's adult learners with an additional $70 million in debt reduction.[54]

[54] Alberta Learning, http://www.learning.gov.ab.ca/news/newsrelease.asp, February 2001.

Student debt levels have increased in every province in Canada. Statistics Canada surveys post-secondary graduates on a four to five-year cycle for a number of characteristics including debt at graduation. Results from three cycles of the *National Graduate Survey* indicate that Bachelor degree graduates from every province in Canada faced higher student loan debt between 1986 and 1995. The increase for Alberta graduates was 62.4% - comparable to British Columbia but slightly higher than the 57.2% increase for Canada overall.



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 216-217.

A recently completed survey of Alberta's university and private university college graduates indicates that students believe the costs of their post-secondary education are worth the benefits. When 7,510 graduating students from the class of 2001 were asked if their program was worth what it cost, 64.0% either agreed or strongly agreed, while 18.4% were neutral and the remainder either disagreed or strongly disagreed. Additionally, Alberta Learning's accessibility study indicates that although students perceive cost to be a barrier to post-secondary education, cost is not the main reason students do not attend.[55]

A recently released report by the Organisation for Economic Co-operation and Development also indicates that the level of student contributions may not have a significant effect on learner's behaviour. The study notes that participation and completion rates are among the highest in countries where students and their families contribute substantially to the costs of their post-secondary education. In countries where students and their families make minor contributions, participation rates are among the lowest.[56]

---

[55] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, p. 4.

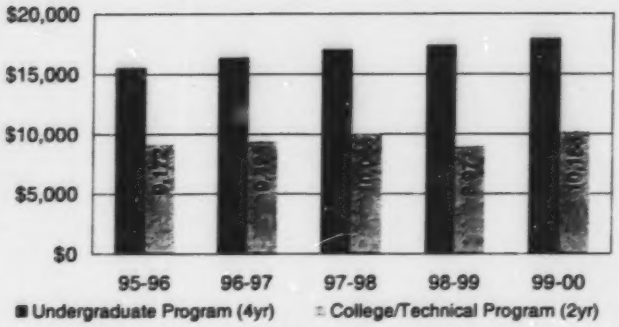
[56] Organisation for Economic Co-operation and Development, *Education at a Glance – OECD Indicators, 2001*, pp. 91-92.

Student Debt

Although increases in non-repayable forms of financial assistance have helped reduce student debt load, the net debt level of Alberta's post-secondary graduates increased between 1995-96 and 1999-00. This increase was expected given the policy direction to increase students' contributions to the costs of their education.

For university undergraduate programs, average net debt increased from $15,518 to $17,942 between 1995-96 and 1999-00, an increase of 15.6%. For technical institute and college programs, average net debt increased from $9,172 to $10,158, an increase of 10.8%. The increase in average net debt at graduation for both two and four year programs is partially attributable to increases in tuition fees and general costs of living – pressures that were addressed through increases to total loan limits and living allowance levels.

Average Net Debt of Alberta Graduates by Program



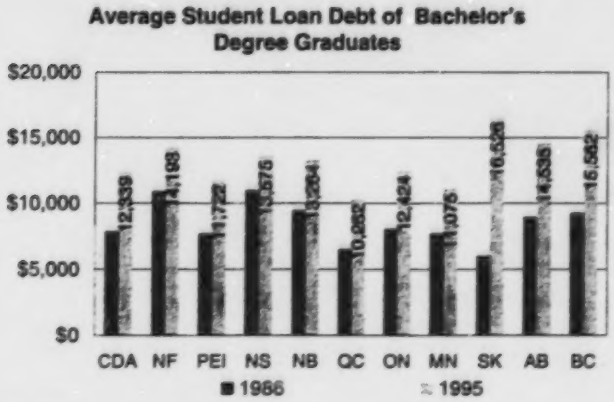
Note: Comparable debt data not available for 1994-95.
Sources: Alberta Advanced Education and Career Development, *1998/99 Annual Report*, p. 45; Alberta Learning, *Annual Report 1999/2000*, p. 213.

There are a number of debt reduction and payment relief programs in place to help Alberta's adult learners repay their student loans. These programs include loan remission (provincial), interest relief (provincial), extended interest relief (federal) and loan debt reduction (federal). Net debt levels of Alberta's post-secondary graduates reflect the decrease in gross debt resulting from loan remission amounts.

Alberta Learning's new student loan relief program, implemented in August 2001, is providing adult learners with additional student loan remission. Students who have combined provincial and federal student loans above $5,000 per academic year or $2,500 per semester (obtained after August 1, 2001) will have any Alberta Student Loan amount above this level automatically relieved upon confirmation of intention to graduate. The new automatic relief program is expected to provide Alberta's adult learners with an additional $70 million in debt reduction.[54]

[54]Alberta Learning, http://www.learning.gov.ab.ca/news/newsrelease.asp, February 2001.

Student debt levels have increased in every province in Canada. Statistics Canada surveys post-secondary graduates on a four to five-year cycle for a number of characteristics including debt at graduation. Results from three cycles of the *National Graduate Survey* indicate that Bachelor degree graduates from every province in Canada faced higher student loan debt between 1986 and 1995. The increase for Alberta graduates was 62.4% - comparable to British Columbia but slightly higher than the 57.2% increase for Canada overall.



Source: Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 216-217.

A recently completed survey of Alberta's university and private university college graduates indicates that students believe the costs of their post-secondary education are worth the benefits. When 7,510 graduating students from the class of 2001 were asked if their program was worth what it cost, 64.0% either agreed or strongly agreed, while 18.4% were neutral and the remainder either disagreed or strongly disagreed. Additionally, Alberta Learning's accessibility study indicates that although students perceive cost to be a barrier to post-secondary education, cost is not the main reason students do not attend.[55]

A recently released report by the Organisation for Economic Co-operation and Development also indicates that the level of student contributions may not have a significant effect on learner's behaviour. The study notes that participation and completion rates are among the highest in countries where students and their families contribute substantially to the costs of their post-secondary education. In countries where students and their families make minor contributions, participation rates are among the lowest.[56]

---

[55] Alberta Learning, *Post-Secondary Accessibility: High School Graduate Survey*, December 2000, p. 4.

[56] Organisation for Economic Co-operation and Development, *Education at a Glance – OECD Indicators, 2001*, pp. 91-92.

Key Points

- Alberta's total per capita spending on post-secondary education is among the highest in Canada.
- Alberta Learning continues to provide the majority of funding to support credit programs subject to the Tuition Fee Policy at Alberta's publicly-funded post-secondary institutions.
- Although the total dollar amount of Alberta Learning grants has increased since 1995-96, grants as a proportion of total net operating expenditures decreased between 1994-95 and 1998-99, rising slightly in 1999-00. Revenues from non-government sources have consistently increased between 1994-95 and 1999-00.
- Alberta's undergraduate arts tuition fees are comparable to other provinces but are now third highest in Canada.
- Although the cost of a post-secondary education is a responsibility shared by students and their families, a recent Statistics Canada survey indicates that parents are not putting aside enough savings to help support their child's post-secondary education.
- Between 1995-96 and 1999-00, student loan debt for graduates of two and four year programs increased by 10.8% and 15.6%, respectively. Alberta's new automatic loan relief program will provide additional debt reduction to graduates as well as first-time, first-year students.
- Both current students and graduates of Alberta's adult learning system believe the benefits of a post-secondary education are worth the costs.

Responsiveness and Flexibility

The learning system is flexible, provides a variety of programs and modes of delivery, and meets the needs of all learners, society and the economy.

In addition to providing access to learning opportunities, the adult learning system is expected to provide the range and type of learning opportunities that respond to the needs of Albertans. Program outcomes should contribute to meeting the social, economic and cultural needs of learners and the province. This includes responding to the needs of individual learners for personal growth, increased capability for good citizenship, and preparation for the workplace, as well as responding to the needs of the economy and employers for a skilled and knowledgeable workforce. Key strategies within the ministry's business plan are to "increase responsiveness of learning programs" and "enhance and support the flexibility of learning opportunities and alternate delivery strategies" to ensure that "the learning system meets the needs of all learners, society and the economy."

Overview

As noted in the Introduction, Alberta's adult learning system provides a comprehensive range of credit and non-credit learning opportunities at public, private and community-based providers throughout the province. Credit opportunities include degree, applied degree, diploma, certificate, apprenticeship training programs and other types of skill training, while non-credit opportunities cover a spectrum including job-related, general interest, leisure and personal development courses and programs. Learning opportunities are available in traditional classrooms as well as through distance delivery mechanisms. Some programs, such as apprenticeship training, combine on-the-job training with classroom-based technical training.

In 1999-00, just under 52% of all students enrolled in credit programs at Alberta's publicly-funded post-secondary institutions were pursuing university degrees, with an additional 0.8% enrolled in applied degrees at colleges or technical institutes. A further 23.6% of students were enrolled in career programs, while the remaining 23.7% were involved in upgrading activities, general studies, and skill and apprenticeship training.

Full-load Equivalent Credit Enrolment in Publicly-funded Post-secondary Institutions by Program Type, 1999-00

Program Type	FLE Enrolment	Percent of Total
Degree Programs:		
Bachelor Degree	47,075	39.4
University Transfer	7,092	5.9
Master's Degree	5,877	4.9
Ph.D. and Doctoral Degree	2,048	1.7
Sub-total	62,092	51.9
Applied Degree	945	0.8
Sub-total	63,037	52.7
Career Programs:		
Diploma	21,668	18.1
Certificate	5,443	4.6
Other - Post-Diploma	471	0.4
Trade Certificate	608	0.5
Sub-total	28,190	23.6
Preparatory and Basic Upgrading	10,368	8.7
General Studies	9,718	8.1
Skill Training	4,150	3.5
Apprenticeship Training	4,111	3.4
Total	119,574	100.0

Source: Alberta Learning, *Annual Report 2000/2001*, p. 23.

Credit Programs at Publicly-funded Post-secondary Institutions

Completions

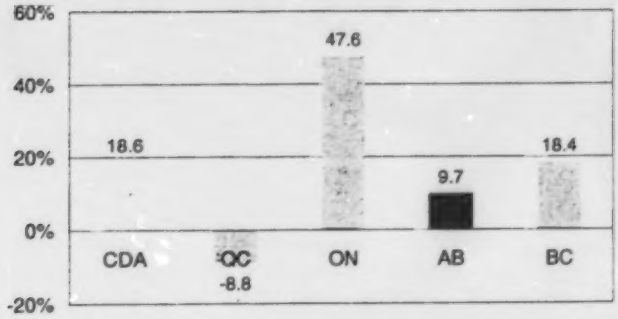
Post-secondary completions provide information on the number of highly educated and skilled individuals in the workforce as well as the overall strength of our human resources. Increases in the number of credentials granted indicate responsiveness to the growing demand for adult learning education.[57]

While the number of community college diplomas and university degrees granted by Alberta's publicly-funded post-secondary institutions has increased between 1994-95 and 1998-99, the increase in Alberta has been at or below the Canadian average in every category except bachelor and first professional degrees. Alberta's strong showing in this category is a reflection of increasing university enrolment in Alberta compared to decreasing enrolments in most other provinces. It may also reflect the growing popularity of university transfer programs offered at the college level, and

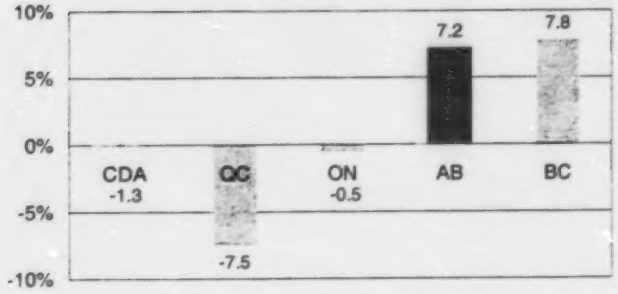
[57] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 93.

explain why the number of college diplomas granted increased at rates below the Canadian average despite Alberta having the highest rate of increase in college enrolment in the country (see Accessibility section).

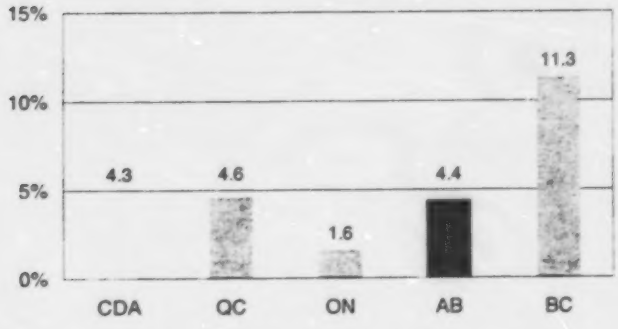
Percent Change in Number of Community College Diplomas Granted, 1994-95 to 1998-99



Percent Change in Number of Bachelor and First Professional Degrees Granted, 1994-95 to 1998-99



Percent Change in Number of Master's Degrees Granted, 1994-95 to 1998-99



Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 124-125.

Although there has been an increase in the number of credentials granted in Alberta at every level, there is still some cause for concern. When examined in terms of the number of post-secondary credential recipients relative to the population aged 20 to 29, Alberta is substantially below the Canadian average for all levels of credentials except that of earned doctorates. For example, the number of Albertans receiving bachelor and first professional degrees per 100,000 population aged 20 to 29 is more than 17% below the national average.

An important consideration in examining post-secondary completions involves the subject area of the graduates. As technology becomes an increasingly important aspect of everyday life, there is a greater need for graduates capable of innovative scientific work to develop and extend technological innovations. The labour market demand for science graduates is reflected in the high earnings and high rates of full-time employment of physical and applied science graduates relative to

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

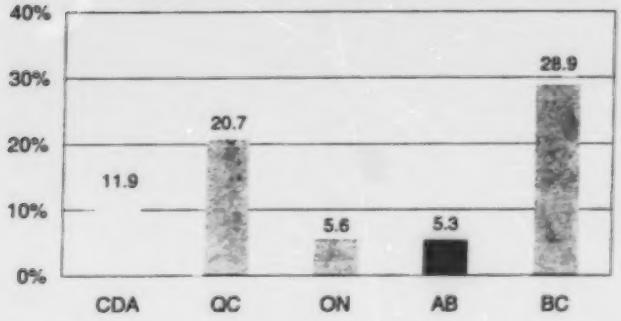
LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

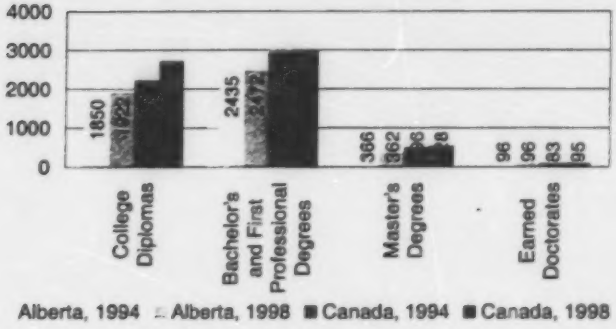
Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

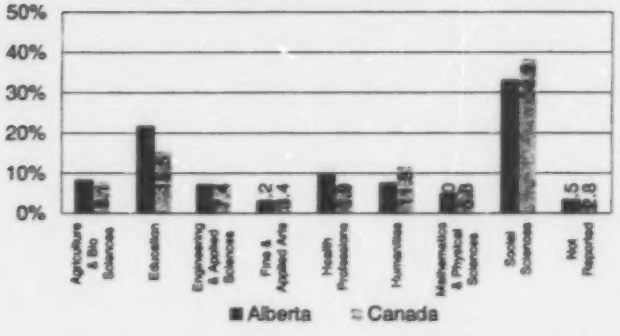
Percent Change in Number of Earned Doctorates Granted, 1994-95 to 1998-99



Credential Recipients per 100,000 Population Aged 20-29



Percentage of Bachelor's & First Professional Degrees Granted by Subject Area, 1998



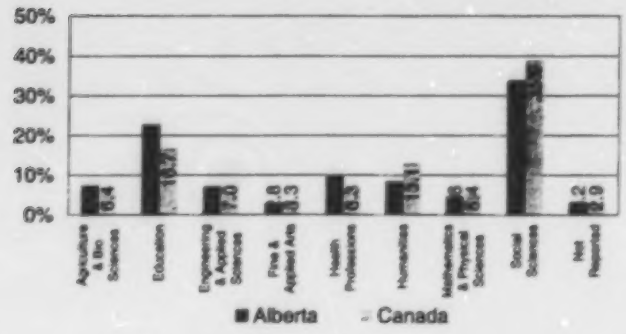
Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 124-125, 156-157, 140.

graduates in other fields of study. In a recent study, Statistics Canada and the Council of Ministers of Education, Canada found that two years after graduation, 1995 graduates of physical and applied science had earnings that, while below those in the health professions, were above those of graduates in commerce and the social sciences.[58]

Despite strong demand in the physical and applied sciences, the largest percentage of university graduates continues to be in other areas. In 1998, 38.3% of all bachelor and first professional degrees granted in Canada were in the social sciences, with another 15.5% in education. For the same year in Alberta, 33.2% of all bachelor and first professional degrees granted were in the social sciences, while 21.8% were in education. In contrast, only 7.4% and 5.8% respectively of all bachelor and first professional degrees granted in Canada were in engineering and applied sciences and mathematics and physical sciences. Alberta's status was much the same with respective percentages of 7.3% and 5.0%. Overall,

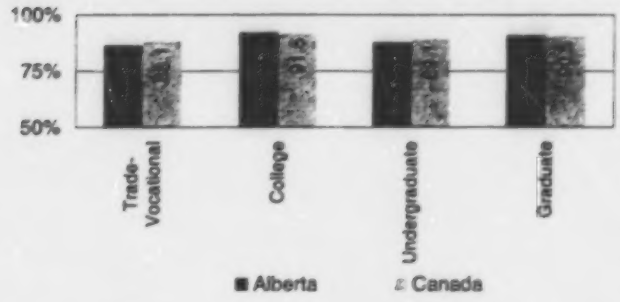
[58] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 5.

Percentage of Bachelor's & First Professional Degrees Granted by Subject Area, 1994

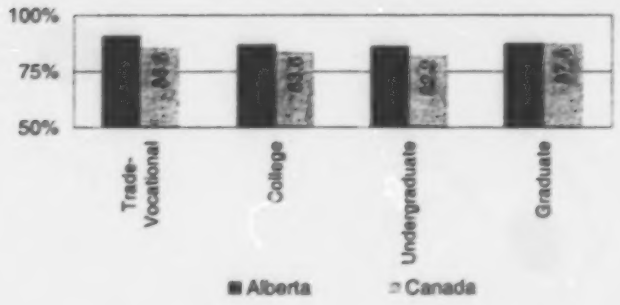


Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 140.

Percentage of 1986 Graduates Working Full-time, Two Years After Graduation, by Level of Education



Percentage of 1995 Graduates Working Full-time, Two Years After Graduation, by Level of Education



Source: Statistics Canada, *National Graduate Survey*, 1988, 1997.

Alberta's adult learning system produces proportionately more graduates in education, agriculture and biological sciences, and health professions than Canada as a whole. Percentages of graduates by subject area in Alberta and across Canada have remained relatively unchanged since 1994.

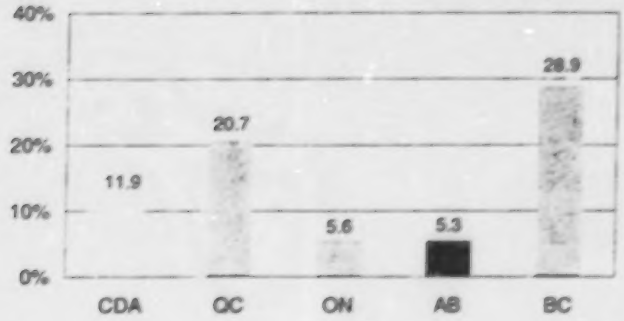
Labour Market Outcomes

Post-secondary education represents a large investment in the development of human capital and therefore it is important to monitor the transition of graduates from school to the labour market. Labour force indicators, such as employment rates and earnings, provide a general reading on how labour market outcomes vary by level education. This type of information helps individuals and society understand the impact and benefits of higher levels of education, and identifies areas where interventions may be needed to improve labour market outcomes.[59]

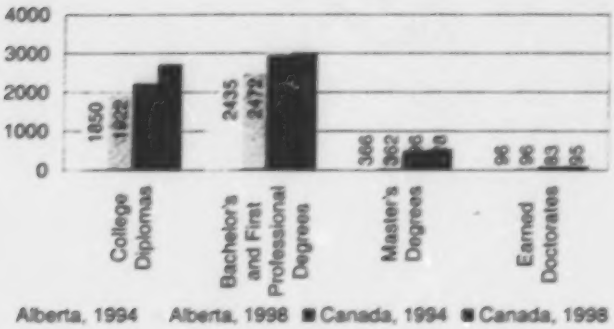
Although higher levels of educational attainment generally are associated with improved labour market outcomes (see

[59] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 110-111.

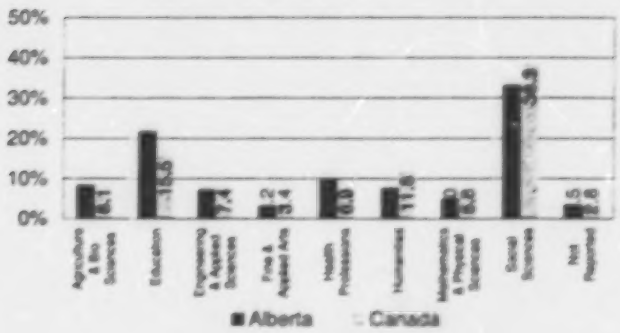
Percent Change in Number of Earned Doctorates Granted, 1994-95 to 1998-99



Credential Recipients per 100,000 Population Aged 20-29



Percentage of Bachelor's & First Professional Degrees Granted by Subject Area, 1998



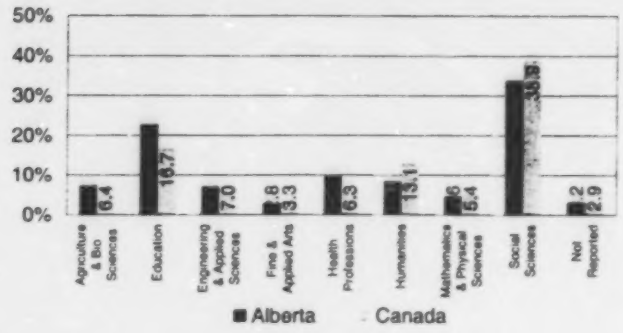
Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, pp. 124-125, 156-157, 140.

graduates in other fields of study. In a recent study, Statistics Canada and the Council of Ministers of Education, Canada found that two years after graduation, 1995 graduates of physical and applied science had earnings that, while below those in the health professions, were above those of graduates in commerce and the social sciences.[58]

Despite strong demand in the physical and applied sciences, the largest percentage of university graduates continues to be in other areas. In 1998, 38.3% of all bachelor and first professional degrees granted in Canada were in the social sciences, with another 15.5% in education. For the same year in Alberta, 33.2% of all bachelor and first professional degrees granted were in the social sciences, while 21.8% were in education. In contrast, only 7.4% and 5.8% respectively of all bachelor and first professional degrees granted in Canada were in engineering and applied sciences and mathematics and physical sciences. Alberta's status was much the same with respective percentages of 7.3% and 5.0%. Overall,

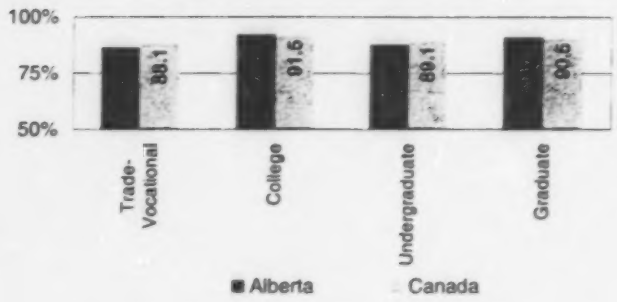
[58] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, p. 5.

Percentage of Bachelor's & First Professional Degrees Granted by Subject Area, 1994

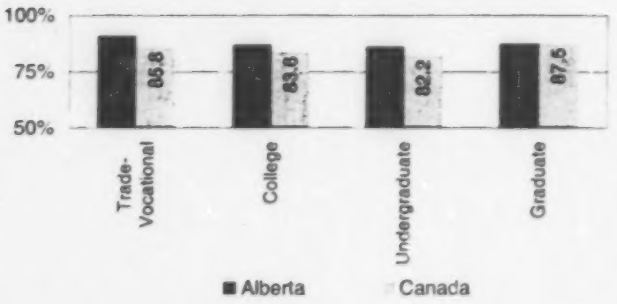


Source: Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 140.

Percentage of 1986 Graduates Working Full-time, Two Years After Graduation, by Level of Education



Percentage of 1995 Graduates Working Full-time, Two Years After Graduation, by Level of Education



Source: Statistics Canada, *National Graduate Survey*, 1988, 1997.

Alberta's adult learning system produces proportionately more graduates in education, agriculture and biological sciences, and health professions than Canada as a whole. Percentages of graduates by subject area in Alberta and across Canada have remained relatively unchanged since 1994.

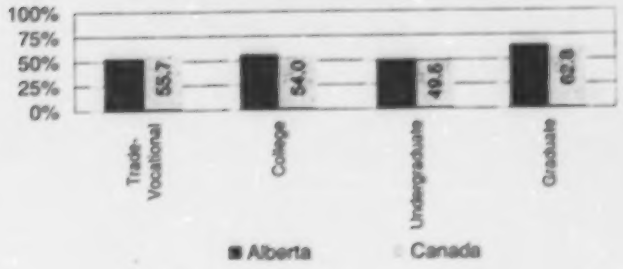
Labour Market Outcomes

Post-secondary education represents a large investment in the development of human capital and therefore it is important to monitor the transition of graduates from school to the labour market. Labour force indicators, such as employment rates and earnings, provide a general reading on how labour market outcomes vary by level education. This type of information helps individuals and society understand the impact and benefits of higher levels of education, and identifies areas where interventions may be needed to improve labour market outcomes.[59]

Although higher levels of educational attainment generally are associated with improved labour market outcomes (see

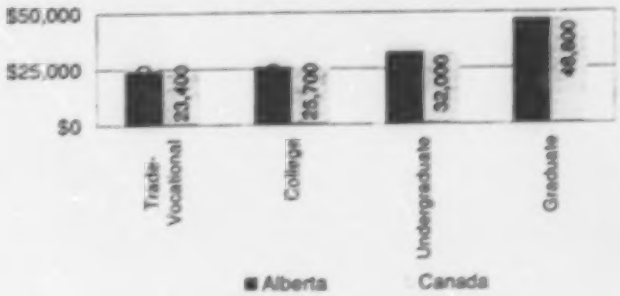
[59] Statistics Canada and Council of Ministers of Education, Canada, *Education Indicators in Canada*, February 2000, pp. 110-111.

Percentage of 1995 Graduates Employed Full-time Two Years After Graduation in a Job Directly Related to Their Education, by Level of Education

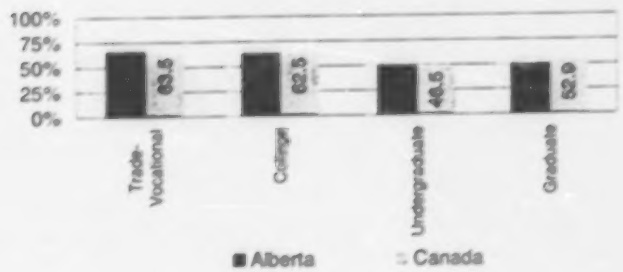


Source: Statistics Canada. *National Graduate Survey*. 1988, 1997.

Full-time Two Years After Graduation, by Level of Education (constant 1997 dollars)



Percentage of 1986 Graduates Employed Full-time Two Years After Graduation in a Job Directly Related to Their Education, by Level of Education



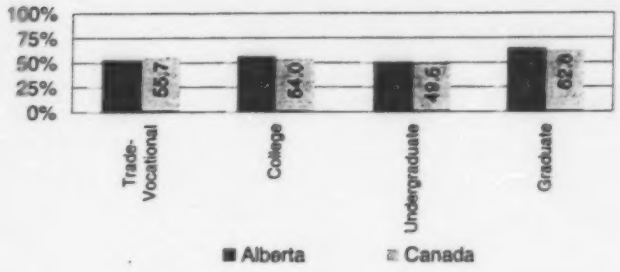
Source: Statistics Canada. *National Graduate Survey*. 1988, 1997.

Introduction), post-secondary graduates in Canada throughout the 1990s appeared to have slightly more difficulty making the transition from school to work than did graduates in the 1980s. Although unemployment rates were similar, 1990s graduates had lower rates of full-time employment, lower earnings and, with the exception of university graduates, reported less education-to-job relevance. Alberta was one of the few provinces to deviate from the Canada-wide trend, with full-time employment rates either increasing or holding relatively steady at all levels of education.

By the mid 1990s, Alberta's rates of full-time employment for post-secondary graduates were well above the Canadian average for all levels of education. However, earnings in Alberta as well as education-to-job relevance, did not deviate from the nation-wide downward trend.

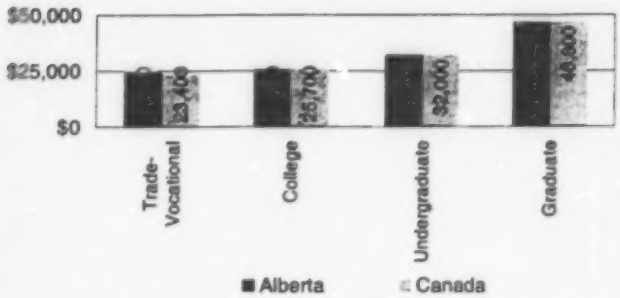
Although some of the difficulty graduates experienced moving into the work force during the 1990s can be attributed to economic conditions, it can also be partly attributed to the subject areas of graduates. There was considerable variation in employment rates by field of study, with the highest percentages employed full-time among commerce, management and administration graduates, engineers, and health professionals. The lowest rates of full-time employment were among graduates of the humanities and

Percentage of 1995 Graduates Employed Full-time Two Years After Graduation in a Job Directly Related to Their Education, by Level of Education

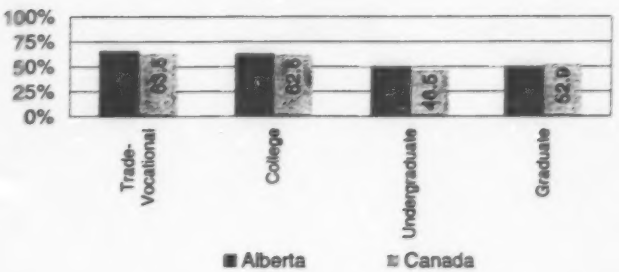


Source: Statistics Canada, *National Graduate Survey*, 1988, 1997.

Full-time Two years After Graduation, by Level of Education (constant 1997 dollars)



Percentage of 1986 Graduates Employed Full-time Two Years After Graduation in a Job Directly Related to Their Education, by Level of Education



Source: Statistics Canada, *National Graduate Survey*, 1988, 1997.

Introduction), post-secondary graduates in Canada throughout the 1990s appeared to have slightly more difficulty making the transition from school to work than did graduates in the 1980s. Although unemployment rates were similar, 1990s graduates had lower rates of full-time employment, lower earnings and, with the exception of university graduates, reported less education-to-job relevance. Alberta was one of the few provinces to deviate from the Canada-wide trend, with full-time employment rates either increasing or holding relatively steady at all levels of education.

By the mid 1990s, Alberta's rates of full-time employment for post-secondary graduates were well above the Canadian average for all levels of education. However, earnings in Alberta as well as education-to-job relevance, did not deviate from the nation-wide downward trend.

Although some of the difficulty graduates experienced moving into the work force during the 1990s can be attributed to economic conditions, it can also be partly attributed to the subject areas of graduates. There was considerable variation in employment rates by field of study, with the highest percentages employed full-time among commerce, management and administration graduates, engineers, and health professionals. The lowest rates of full-time employment were among graduates of the humanities and

social sciences, particularly fine and applied arts. Additionally, graduates in these fields of study experienced the greatest drop in full-time employment over the period. Despite the reduced likelihood of obtaining full-time employment, the largest percentage of university graduates continues to be in the social sciences (see Completions above).

A recent Statistics Canada study indicates that the labour market for graduates of humanities and social science programs improves over time, as these individuals settle into careers and obtain work experience. Social science graduates age 45 and over have higher employment and wage rates than similar-aged graduates of applied programs (commerce, management, biological sciences, engineering, health and physical sciences). However, the study also indicates that overall, the return on education for humanities and social science graduates is lower than that of graduates of applied programs.[60]

Percentage of 1986 and 1995 University Graduates Working Full-time, Two Years after Graduation, by Field of Study, Canada

Field of Study	1986 Graduates	1995 Graduates
Total (all fields)	**75**	**67**
Physical, Natural and Applied Sciences	**75**	**70**
Agriculture and biological sciences	59	56
Engineering and applied sciences	82	81
Mathematics and physical sciences	78	70
Humanities and Social Sciences	**70**	**61**
Education	78	68
Fine and applied arts	59	49
General arts and science	68	58
Humanities	65	56
Social sciences	70	61
Commerce, Management and Administration	88	85
Commerce, Management and Administration	**88**	**85**
Health Professions	**77**	**72**

Note: Data not available by province. Percentages are lower than those reported through the *National Graduate Survey* because the *Survey* excludes graduates returning to post-secondary studies and therefore not able to work.

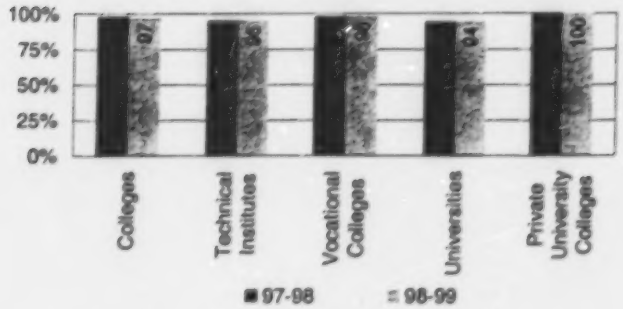
Source: Statistics Canada and Council of Ministers of Education Canada, *Education Indicators in Canada*, February 2000, p. 244.

[60]Statistics Canada, "Liberal Arts Degrees and the Labour Market," *Perspectives*, vol. 2, no. 7, July 2001, p. 15, Catalogue 75-001-XIE.

Graduate, Public and Employer Satisfaction

To determine the extent to which Alberta's adult learning system is meeting the needs of individual learners, society in general and the economy, Alberta Learning conducts independent surveys to determine student, public and employer satisfaction. Results indicate that overall, all three respondent groups are highly satisfied with the quality of education provided by Alberta's publicly-funded post-secondary institutions.

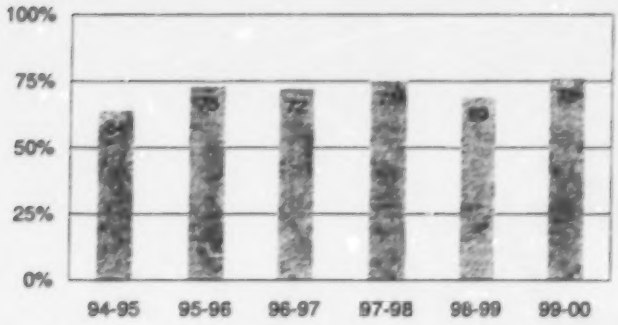
Percentage of Recent Post-secondary Graduates Satisfied with the Overall Quality of Their Education



Sources: Alberta Advanced Education and Career Development, *1997/98 Annual Report*, p. 38; *1998/99 Annual Report*, p. 35.

Recent graduates of Alberta's adult-learning system are surveyed to determine the level of satisfaction with the overall quality of their education. Student satisfaction has remained at or above 94% for graduates from all sectors between 1997-98 and 1998-99. Graduates from private university colleges are particularly satisfied with the overall quality of their education – with all surveyed graduates indicating that they were either very satisfied or satisfied.

Public Satisfaction that Adult Learners are Prepared for the Workforce

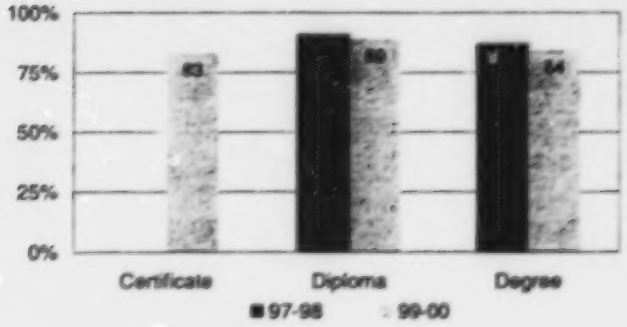


Sources: Alberta Learning, *Annual Report 1999/2000*, p. 20; Alberta Learning, Corporate Services Division.

Albertans are surveyed on an annual basis to determine if they are satisfied that graduates of Alberta's adult learning system have the skills and knowledge needed for the workforce. Public satisfaction with Alberta's adult learning system has ranged from a low of 64% in 1994-95 to a high of 76% in 1999-00. This consistent and relatively high level of satisfaction indicates that Albertans for the most part believe that graduates have the skills and knowledge needed to succeed in the workforce.

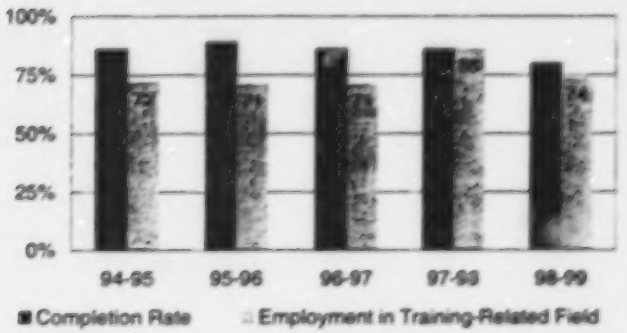
Employers of graduates of Alberta's adult learning system are also surveyed to determine their level of satisfaction with the graduates they hire. This measure provides evidence beyond that provided through the public survey that Alberta's graduates are equipped with the skills and knowledge needed to succeed in the workforce. Overall, employers are highly satisfied with the skills of recent graduates, with more than 80% satisfied for graduates of all program types for the two survey cycles that have been completed. Employers of diploma graduates in particular are highly satisfied with the skills that graduates developed through Alberta's adult learning system.

Employer Satisfaction with Skills of Recent Alberta Post-secondary Graduates



Source: Alberta Learning, *Annual Report 2000/2001*, p. 41.

Completion and Training-Related Employment for Private Vocational School Students



Source: Alberta Learning, Adult Learning Division, Private Institutions Branch.

Private Vocational School Labour Market Outcomes

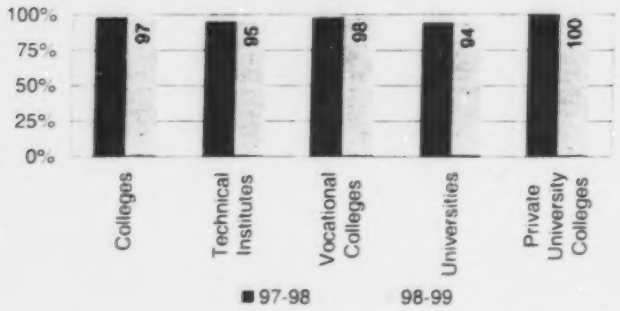
As described in the Introduction, the purpose of Alberta's private vocational schools is to provide adult learners with educational and training opportunities that lead to employment in a related field. To ensure that programs provided by private vocational schools are responsive to the labour market, data on completion rates and job placement rates have been collected since 1989 as a requirement of the *Private Vocational Schools Act*.

Between 1995-96 and 1998-99, the completion rate of Alberta's private vocational school students has consistently been at or above 80%. Similarly, the placement rate in a training related field has also been strong for those students who have completed programs – ranging from a low of 71% in 1995-96 and 1996-97, to a high of 86% in 1997-98. Overall, private vocational schools in Alberta are successful in providing adult learners with education and training that leads to employment in related fields.

Graduate, Public and Employer Satisfaction

To determine the extent to which Alberta's adult learning system is meeting the needs of individual learners, society in general and the economy, Alberta Learning conducts independent surveys to determine student, public and employer satisfaction. Results indicate that overall, all three respondent groups are highly satisfied with the quality of education provided by Alberta's publicly-funded post-secondary institutions.

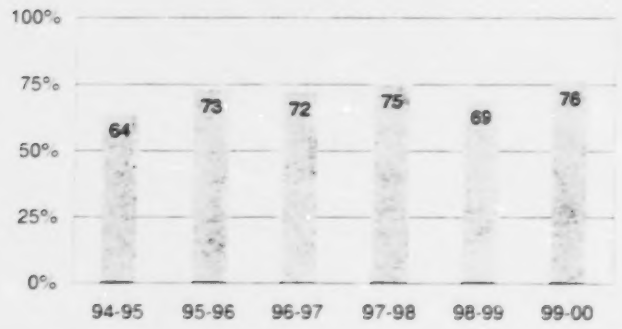
Percentage of Recent Post-secondary Graduates Satisfied with the Overall Quality of Their Education



Sources: Alberta Advanced Education and Career Development. *1997/98 Annual Report*, p. 38. *1998/99 Annual Report*, p. 35.

Recent graduates of Alberta's adult-learning system are surveyed to determine the level of satisfaction with the overall quality of their education. Student satisfaction has remained at or above 94% for graduates from all sectors between 1997-98 and 1998-99. Graduates from private university colleges are particularly satisfied with the overall quality of their education – with all surveyed graduates indicating that they were either very satisfied or satisfied.

Public Satisfaction that Adult Learners are Prepared for the Workforce

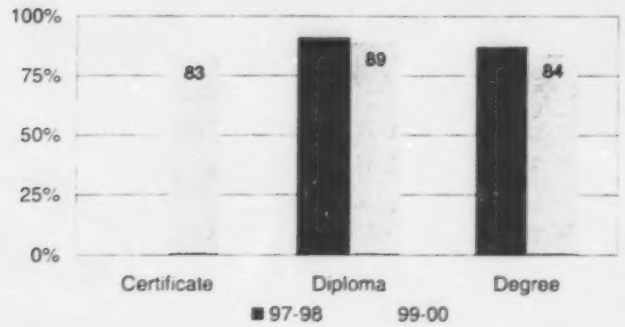


Sources: Alberta Learning, *Annual Report 1999/2000*, p. 20. Alberta Learning, Corporate Services Division

Albertans are surveyed on an annual basis to determine if they are satisfied that graduates of Alberta's adult learning system have the skills and knowledge needed for the workforce. Public satisfaction with Alberta's adult learning system has ranged from a low of 64% in 1994-95 to a high of 76% in 1999-00. This consistent and relatively high level of satisfaction indicates that Albertans for the most part believe that graduates have the skills and knowledge needed to succeed in the workforce.

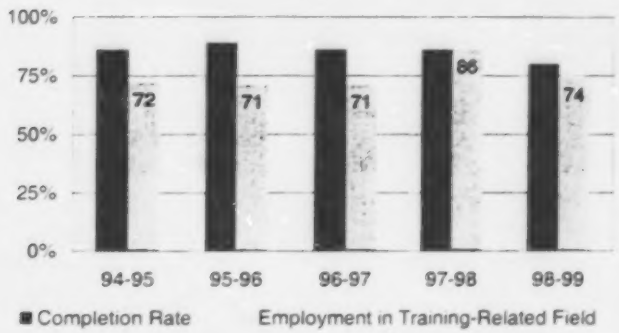
Employers of graduates of Alberta's adult learning system are also surveyed to determine their level of satisfaction with the graduates they hire. This measure provides evidence beyond that provided through the public survey that Alberta's graduates are equipped with the skills and knowledge needed to succeed in the workforce. Overall, employers are highly satisfied with the skills of recent graduates, with more than 80% satisfied for graduates of all program types for the two survey cycles that have been completed. Employers of diploma graduates in particular are highly satisfied with the skills that graduates developed through Alberta's adult learning system.

Employer Satisfaction with Skills of Recent Alberta Post-secondary Graduates



Source Alberta Learning, *Annual Report 2000/2001*, p. 41.

Completion and Training-Related Employment for Private Vocational School Students



Source Alberta Learning, Adult Learning Division, Private Institutions Branch.

Private Vocational School Labour Market Outcomes

As described in the Introduction, the purpose of Alberta's private vocational schools is to provide adult learners with educational and training opportunities that lead to employment in a related field. To ensure that programs provided by private vocational schools are responsive to the labour market, data on completion rates and job placement rates have been collected since 1989 as a requirement of the *Private Vocational Schools Act*.

Between 1995-96 and 1998-99, the completion rate of Alberta's private vocational school students has consistently been at or above 80%. Similarly, the placement rate in a training related field has also been strong for those students who have completed programs – ranging from a low of 71% in 1995-96 and 1996-97, to a high of 86% in 1997-98. Overall, private vocational schools in Alberta are successful in providing adult learners with education and training that leads to employment in related fields.

Adult Education and Training Activities

As noted in the Accessibility section, adult education and training refers to any courses, lessons, seminars, workshops or other forms of structured learning taken by persons over the age of 17, not attending an educational institution on a full-time basis.[61] The learning can be either credit or non-credit in nature. Adult education and training opportunities in Alberta are provided through publicly-funded post-secondary institutions, Community Adult Learning Councils and other community programs, as well as non-profit organizations, employers, and other private entities.

According to the federal government's recent *Report on Adult Education and Training in Canada*, participants in adult education and training generally perceived their education and training to be useful, and expressed a high level of satisfaction with the education or training received. People studying for job-related reasons applied the acquired skills or knowledge at work to a higher degree than those who participated for personal development. Also noteworthy was the extent to which what was learned in one context was transferred to another. For half the courses taken for personal reasons, the acquired skills and knowledge were reported to be greatly or somewhat useful at work as well. Similarly, though to a lesser extent, job-related courses helped people in their personal lives. General usefulness was higher for programs than for courses. In applying acquired skills in personal life, those who took courses from non-profit organizations reported the greatest usefulness.[62]

Percentage Distribution of the Level that Acquired Skills or Knowledge Were Used at Work

	To a great extent	Somewhat	Very little	Not at all
Programs				
Job-related purpose	45.5	28.5	10.0	15.8
Personal interest purpose	25.4	35.2	15.8	23.5
Courses				
Job-related purpose	54.8	32.6	7.3	5.3
Personal interest purpose	22.4	28.9	15.4	33.4

Percentage Distribution of the Level that Acquired Skills or Knowledge Were Used in Personal Life

Programs				
Job-related purpose	23.5	38.4	18.9	19.3
Personal interest purpose	33.6	38.4	12.9	15.0
Courses				
Job-related purpose	16.5	31.6	18.7	33.1
Personal interest purpose	33.8	38.7	15.6	12.0

Note: Data not available by province.
Source: Statistics Canada and Human Resources Development Canada, *Report on Adult Education and Training in Canada*, May 2001, p. 77.

[61] Statistics Canada, *Education in Canada, 2000*, Catalogue 81-229-XPB, p. 94.
[62] Statistics Canada and Human Resources Development Canada, *Report on Adult Education and Training in Canada*, May 2001, p. 27.

Adult Literacy

Literacy means more than the basic ability to read and write – it also reflects an individual's ability to understand and use information, a key function in an increasingly complex world.[63] Literacy skills are critical to an individual's ability to obtain and retain employment, advance in the workplace and participate fully in society. Results from the most recent International Adult Literacy Survey show that Albertans enjoy one of the highest average literacy levels in Canada.[64] Despite this achievement, approximately 15% of adult Albertans still have difficulty understanding or interpreting basic text.[65] Lower levels of literacy are not restricted to marginalized groups, but can be found throughout the entire adult population.

Key Points

- While the number of community college diplomas and university degrees granted by Alberta's publicly-funded institutions increased between 1994-95 and 1998-99, Alberta's increase has been at or below the Canadian average in every category except bachelor and first professional degrees.
- The number of post-secondary credential recipients relative to the population aged 20 to 29 in Alberta is substantially below the Canadian average for all levels except that of earned doctorates.
- Despite strong demand in the physical and applied sciences, the largest percentage of university graduates continues to be in other areas.
- Post-secondary graduates in Canada throughout the 1990s appeared to have slightly more difficulty making the transition from school to work than did graduates in the 1980s. Although unemployment rates were similar, 1990s graduates had lower rates of full-time employment two years after graduation, lower earnings and, with the exception of university graduates, reported less education-to-job relevance.
- Some of the difficulty graduates experienced moving into the work force can be attributed to the subject areas of graduates. The lowest rates of full-time employment were among graduates of the humanities and social sciences, particularly fine and applied arts. Additionally, graduates in these fields of study experienced the greatest drop in full-time employment over the period. Employment and wage rates of humanities and social science graduates improve as these individuals settle into careers and obtain work experience.

---

[63] Statistics Canada, Human Resources Development Canada and the National Literacy Secretariat, *Reading the Future: A Portrait of Literacy in Canada*, September 1996, Catalogue 89-551-XPE, p. 9.
[64] Statistics Canada and Human Resources Development Canada, *Literacy, Numeracy and Labour Market Outcomes in Canada*, March 2001, Catalogue 89-552-MIE, no. 8, p. 17.
[65] Statistics Canada, Human Resources Development Canada and the National Literacy Secretariat, *Reading the Future: A Portrait of Literacy in Canada*, September 1996, Catalogue 89-551-XPE, pp. 20, 88-107.

- Independent surveys indicate that graduates, the public and employers overall are highly satisfied with the quality of education provided by Alberta's publicly-funded post-secondary institutions.
- Alberta's private vocational schools have strong completion rates as well as high rates of employment in training-related fields.
- Participants in adult education and training generally perceive their education and training to be useful, and express a high level of satisfaction with the education or training received.
- Although Alberta has among the highest average literacy levels in Canada, approximately 15% of adult Albertans still have difficulty understanding basic text.

Innovation Through Research Excellence

The innovation and research capacity of the learning system will be strengthened through the enhancement and maintenance of university research excellence.

University research is a vital part of Alberta's publicly funded adult learning system. The research conducted at Alberta's universities contributes significantly to the social and economic development of the province and is an integral part of the university educational experience. While it is recognized that research is also undertaken in the college and technical institute sectors, often on a contract basis for industry, only the universities are legislated and funded to carry out research as an essential part of their mandates.

Each of Alberta's four universities plays a unique research role within the province as well as participates in national research initiatives. The University of Alberta and the University of Calgary are both full-service research institutions that offer a comprehensive range of undergraduate and graduate programs. The University of Lethbridge is a smaller institution that offers programs in the humanities, social and natural sciences, education, fine arts, management and nursing, and performs research in related areas. Athabasca University specializes in distance education and conducts research related to distance delivery technology and teaching.

Through research Alberta's universities:

- Train individuals to be highly skilled researchers through participation in advanced studies and graduate and post-doctoral programs.
- Link Alberta to international knowledge. Basic or discipline-driven research often occurs within a university setting, where academic scientists and scholars specialize in state-of-the-art research within their field of study. These individuals are Alberta's link to other leading researchers around the world.
- Contribute to the province's overall quality of life through advances in medical care, communications technology, agricultural methods, and environmental and other issues.
- Develop and diversify the Alberta economy through the application of new knowledge and technologies, and the creation of spin-off businesses.
- Create and improve products and processes. Research is a process that teaches, adds knowledge, and identifies new questions. University research helps to develop new methodologies and advance areas of application and inquiry.
- Problem-solve for businesses and community groups. Businesses and community groups provide a substantial amount of support for research to help solve economic, social, and cultural issues of strategic importance.
- Help maintain Alberta's competitive edge. Alberta's continued prosperity rests on the ability of the adult learning system to develop and maintain a highly skilled workforce and to create and use new knowledge and technology.

Research Infrastructure

Alberta Learning supports the research function of Alberta's universities through base operations grants and Performance Envelope funding. Total research support ranges from 5% to 30% of a university's base operations grant depending on the research intensity of the institution. In 2000-01, Alberta's universities received $440 million in base operations grants and an additional $1.15 million through the research component of the Performance Envelope.

Operating grants and Performance Envelope funding support the research function of Alberta's universities by providing funds for overall research infrastructure, which consists of both intellectual and technology infrastructure. Intellectual infrastructure refers to human resources such as faculty and graduate students, while technology infrastructure refers to physical resources such as facilities, laboratories, specialized equipment, and computing and telecommunications infrastructure. There is a close link between research infrastructure and sponsored research funding, as a high-quality research infrastructure improves the overall potential to attract sponsored research funding.

Sponsored Research

Alberta's universities perform a substantial portion of the total amount of sponsored research conducted within the province. Sponsored research refers to specific research initiatives supported by external sponsors, including federal research granting councils, provincial government sources, as well as non-profit and industry sources. Sponsored research is project specific, with funding awarded based on the merits of a project as determined by experts in the field. In general, awards are made based on a project's value and the overall quality of the research proposal.

Provincial and Federal Government Funding

A significant proportion of sponsored research revenue awarded to Alberta's universities comes from provincial government sources, including the:

- Research Excellence Envelope (Innovation and Science) – Helps recruit and retain high quality researchers and graduate students in areas of identified strengths. ($3.5 million available in 2001-02).
- Alberta Science Research Investments Program (ASRIP) (Innovation and Science) – Supports selected science and research initiatives of strategic importance to Alberta ($30 million available in 2001-02).
- Alberta Heritage Foundation for Medical Research (AHFMR) – The government established the $300 million medical research fund to generate an annual source of research funding. In 1999-00, the fund generated over $39.5 million in direct funding for medical research in Alberta.

- Alberta Ingenuity Fund (AIF) – $500 million was set aside in *Budget 2000* to provide stable, long term funding for research and development in a variety of science and engineering fields.
- Informatics Circle of Research Excellence (iCORE) – Fosters university-based research in information and communications technology. The province has committed $10 million per year to fund the program.

Alberta is unique in Canada in that it has provincial agencies, such as AHFMR and AIF, that provide sponsored research funding for medical and science and engineering research.

Several organizations form the core of federal support for post secondary education research and development: the Canadian Institutes for Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC), and the Canada Foundation for Innovation (CFI). These organizations operate at arm's length from the federal government with each group designing its own program structure and relying on peer review systems for funding decisions. CIHR, NSERC, SSHRC and CFI are the pillars of post secondary education research and development funding in Canada, with most other research funding mechanisms building on the capacity generated by these core funding organizations. For example, in Alberta, ISRIP is used to leverage support from the CFI in order to maximize the research dollars flowing into the province.

Total Sponsored Research Revenue

Between 1994-95 and 1999-00, total sponsored research revenue at Alberta's universities grew from $160.7 million to $300 million, an increase of 86.7%. Provincial sources of sponsored research revenue exhibited the strongest growth over this period, increasing 198.1%.

Total Sponsored Research Revenue Awarded to Alberta's Universities by Source (millions of dollars)

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	Total Change over Period
Non-profit	24.4	24.6	29.7	25.9	28.4	36.2	48.1%
Industry	20.4	25.3	30.0	35.6	44.5	43.1	111.3%
Provincial	30.9	35.5	35.4	47.6	65.4	92.0	198.1%
Federal	81.0	79.8	79.8	79.3	86.2	118.9	46.8%
Other	4.0	4.5	4.9	6.0	6.4	9.8	143.1%
Total	160.7	169.7	179.8	194.4	230.9	300.0	86.7%

Sources: Alberta Advanced Education and Career Development, *1997/98 Annual Report*, p. 56; Alberta Advanced Education and Career Development, *1998/99 Annual Report*, p. 51; Alberta Innovation and Science, *Research Funding at Alberta Universities 1999/2000 Report*, March 2001, p. 15.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

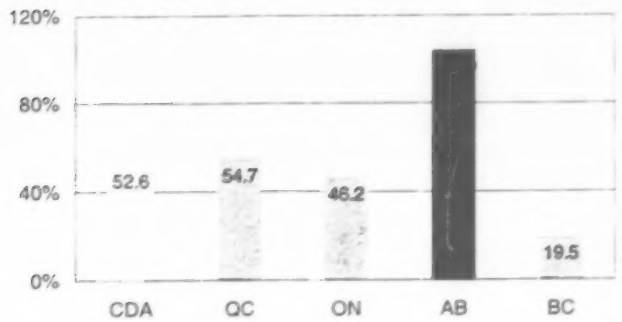
LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

Increases in government funding reflect the introduction of new programs such as the Canadian Foundation for Innovation, Canadian Institutes for Health Research and the Canada Research Chairs Program at the federal level, as well as iCORE and AIF at the provincial level. The total level of sponsored research revenue from industry and other sources also grew, with funding from these sources increasing by 104.9% and 125.0% respectively.

Percent Increase in Total Sponsored Research Revenue, 1994-95 to 1999-00

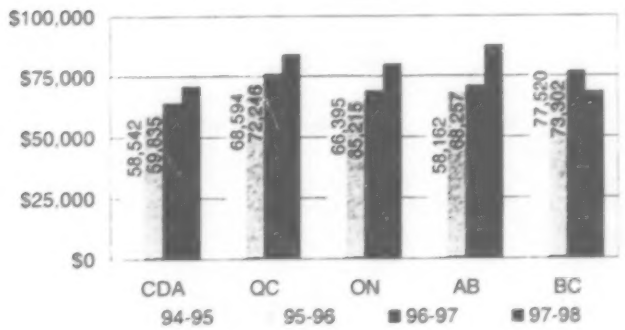


Note: Not all post-secondary institutions conducting sponsored research are members of the Canadian Association of University Business Officers (CAUBO). Percent increase does not correspond to table on previous page due to different reporting requirements.

Sources: Statistics Canada and the Canadian Association of University Business Officers, *Financial Statistics of Universities and Colleges, 1994-95*; *Financial Information of Universities and Colleges, 1999-00*

At 103.9%, Alberta's growth in sponsored research revenue between 1994-95 and 1999-00 was the highest among provinces that generate more than $100 million per year in sponsored research funding. Over the same period, Quebec, Ontario and British Columbia's sponsored research revenue grew 54.7%, 46.2% and 19.5%, respectively. Overall, sponsored research revenue in Canada grew by 52.6% for the period.

Sponsored Research Revenue per Full-time Academic Staff Member



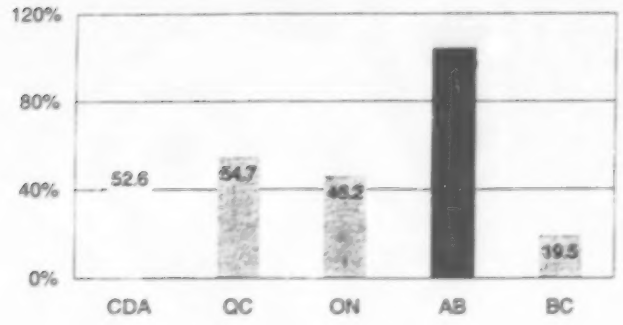
Source: Alberta Learning, Key Performance Indicators Reporting System.

Revenue per Full-time Academic Staff Member

For those provinces with large post-secondary institutions, Alberta had the highest level of sponsored research revenue per full-time academic staff member in 1997-98 (the most recent year available). Between 1994-95 and 1997-98, sponsored research revenue per full-time academic staff member increased from $58,162 to $87,665, an increase of 50.7%. Part of this increase is attributable to funding provided by provincial agencies, such as AHFMR.

Increases in government funding reflect the introduction of new programs such as the Canadian Foundation for Innovation, Canadian Institutes for Health Research and the Canada Research Chairs Program at the federal level, as well as iCORE and AIF at the provincial level. The total level of sponsored research revenue from industry and other sources also grew, with funding from these sources increasing by 104.9% and 125.0% respectively.

Percent Increase in Total Sponsored Research Revenue, 1994-95 to 1999-00

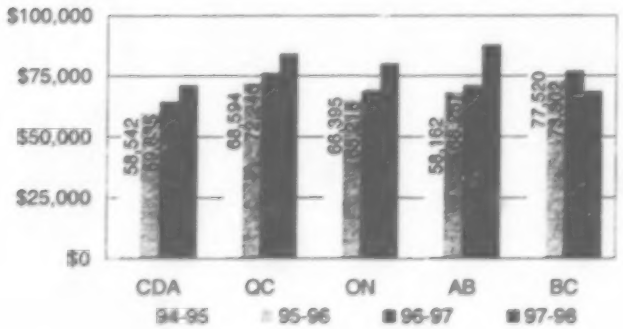


Note: Not all post-secondary institutions conducting sponsored research are members of the Canadian Association of University Business Officers (CAUBO). Percent increase does not correspond to table on previous page due to different reporting requirements.

Sources: Statistics Canada and the Canadian Association of University Business Officers, *Financial Statistics of Universities and Colleges, 1994-95*; *Financial Information of Universities and Colleges, 1999-00*.

At 103.9%, Alberta's growth in sponsored research revenue between 1994-95 and 1999-00 was the highest among provinces that generate more than $100 million per year in sponsored research funding. Over the same period, Quebec, Ontario and British Columbia's sponsored research revenue grew 54.7%, 46.2% and 19.5%, respectively. Overall, sponsored research revenue in Canada grew by 52.6% for the period.

Sponsored Research Revenue per Full-time Academic Staff Member



Source: Alberta Learning, Key Performance Indicators Reporting System.

Revenue per Full-time Academic Staff Member

For those provinces with large post-secondary institutions, Alberta had the highest level of sponsored research revenue per full-time academic staff member in 1997-98 (the most recent year available). Between 1994-95 and 1997-98, sponsored research revenue per full-time academic staff member increased from $58,162 to $87,665, an increase of 50.7%. Part of this increase is attributable to funding provided by provincial agencies, such as AHFMR.

Revenue from Federal Granting Councils per Full-time Faculty Member

Federal granting council awards are based on a peer review of the submitting faculty member's research record and on the strength and quality of the research proposal. The total amount of grant dollars awarded to an institution per full-time faculty member is averaged over a three-year period, and institutions of similar size (peer institutions) are compared. Since 1994-95, Alberta's universities have consistently attained strong rankings, placing among the top half of peer institutions for their respective categories. Athabasca University is not ranked because of its unique mandate to provide primarily distance learning opportunities.

Average Federal Granting Council Award per Full-time Faculty Member, University of Alberta and University of Calgary Peer Institutions

Institution	1994-95 to 1996-97	Rank	1996-97 to 1998-99	Rank
McGill	$5,493	1	$6,824	1
University of Alberta	$4,882	2	$5,940	2
Queen's	$4,472	3	$5,799	3
UBC	$4,432	4	$4,961	4
McMaster	$4,419	5	$4,735	5
Toronto	$3,587	7	$4,280	6
Montreal	$3,070	8	$4,133	7
University of Calgary	$3,792	6	$3,933	8
Laval	$2,983	9	$3,382	9
Ottawa	$2,939	10	$3,371	10
Western	$2,635	11	$3,226	11
Dalhousie	$2,297	14	$3,015	12
Sherbrooke	$2,404	13	$2,962	13
Manitoba	$2,588	12	$2,800	14
Saskatchewan	$1,894	15	$2,056	15
Memorial	$1,388	16	$1,482	16

Average Federal Granting Council Award per Full-time Faculty Member, University of Lethbridge Peer Institutions

Institution	1994-95 to 1996-97	Rank	1996-97 to 1998-99	Rank
Trent	$1,203	1	$937	1
Mt. Allison	$805	2	$692	2
St. Mary's	$643	5	$489	3
PEI	$486	9	$488	4
University of Lethbridge	$762	4	$463	5
Acadia	$597	6	$421	6
Brock	$775	3	$375	7
Wilfred Laurier	$574	7	$280	8
Winnipeg	$521	8	$262	9
Brandon	$313	10	$244	10
Mt. St. Vincent	$250	11	$81	11

Source: Alberta Learning, Key Performance Indicators Reporting System

Supporting the Full Costs of Sponsored Research

There are direct and indirect costs associated with conducting sponsored research. Direct costs are expenses that can be directly attributed to a specific research project. Indirect costs are expenses that cannot be directly attributed, but are required for the conduct of research, such as:

- building space maintenance and operation (heat, electricity, water, air conditioning, etc.);
- building and equipment use and depreciation;
- security and fire protection;
- library services and administration;
- payroll and accounting;
- central administration;
- student services; and
- a portion of faculty and department.

Most sponsored research funding provided by provincial and federal governments supports direct costs only. It is estimated that for every dollar in sponsored research funding received, there are an additional 40 cents in indirect costs that are not funded. As a result, universities must support these costs out of general operating funds. The more successful a university becomes in attracting sponsored research funding, the greater the pressure placed on the general operating budget. This pressure not only reduces the level of funds available for instructional purposes, but impedes the ability of universities to take on additional research projects.

Expenditures on Research and Development

Gross Domestic Expenditures on Research and Development

Gross domestic expenditures on research and development (GERD) gives an indication of the total amount of research and development activity performed within Canada. It includes research completed at post-secondary institutions as well as research completed by provincial and federal governments, provincial research organizations, business enterprises, and private non-profit organizations. GERD includes foreign funds used to support research completed within Canada but excludes Canadian funds used to support research completed outside the country.

Canada's GERD rose from $13.4 billion to $15.2 billion between 1994 and 1998, an increase of 13.4%. Over the same time period, Alberta's gross domestic expenditures on research and development rose from $966 million to $1,094 million, an increase of 13.3%. In absolute dollars, Alberta has the third highest expenditures on research and development in Canada, behind Ontario and Quebec. More recent data at the national level indicates that GERD continues to rise, totaling $15.7 billion in 1999 and $16.6 billion in 2000 – comparative provincial data is not available.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

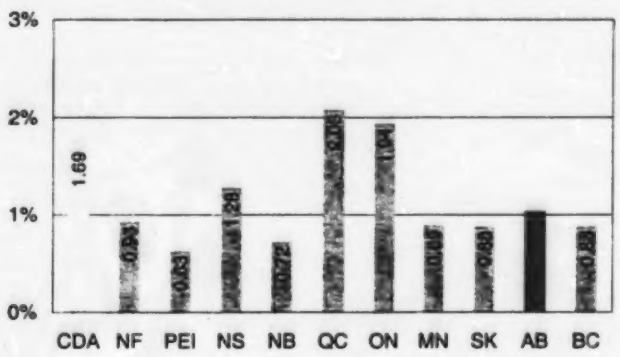
Gross Domestic Expenditures on Research and Development, 1994 to 1998 (millions of dollars) and GERD to GDP Ratio, 1998

	1994	1995	1996	1997	1998	Total Change over Period	GERD to GDP Ratio
CDA	13,367	13,836	13,932	14,736	15,201	13.4%	1.69
NF	108	101	103	101	104	-3.7%	0.93
PEI	17	16	16	18	18	5.8%	0.63
NS	266	265	258	256	270	1.5%	1.28
NB	135	142	151	125	126	-6.7%	0.72
QC	3,512	3,699	3,816	3,963	4,028	14.7%	2.08
ON	5,961	6,229	6,302	6,871	7,224	21.2%	1.94
MN	311	296	293	270	267	-14.1	0.89
SK	238	251	231	284	253	6.3%	0.88
AB	966	971	992	1,038	1,094	13.3%	1.03
BC	1,067	1,070	1,011	1,053	1,007	-5.6%	0.88

Note: Canadian GERD figures include expenditures within the National Capital Region. Ontario and Quebec GERD figures exclude expenditures within the National Capital Region.
Source: Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 4.

Canada's ratio of GERD to GDP was 1.74 in 1994 and 1.69 in 1998, a decrease of 2.9%.[66] This decrease resulted from a substantial increase in Canada's GDP between 1994 and 1999. Overall, Canada's GERD to GDP ratio is the second lowest of the G-7 countries, with only Italy reporting a lower ratio (1.02 in 1998). The higher ratios of other countries may be due, in part, to the greater research and development expenditures on defense. Alberta's GERD to GDP ratio was 1.03 in 1998, well below the Canadian average of 1.69 and fourth overall behind Quebec, Ontario and Nova Scotia. This ranking is partly attributable to Alberta's higher productivity and higher GDP (see Introduction). In 1998, Alberta had the highest GDP per capita in the country.[67]

GERD to GDP Ratio, 1998



Source: Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 4.

[66] Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 2.
[67] Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 4.

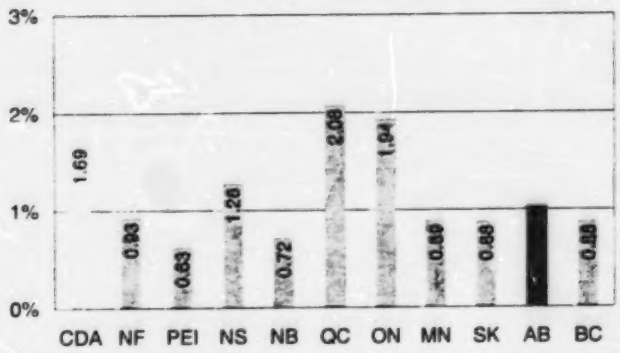
Gross Domestic Expenditures on Research and Development, 1994 to 1998 (millions of dollars) and GERD to GDP Ratio, 1998

	1994	1995	1996	1997	1998	Total Change over Period	GERD to GDP Ratio
CDA	13,367	13,836	13,932	14,736	15,201	13.4%	1.69
NF	108	101	103	101	104	-3.7%	0.93
PEI	17	16	16	18	18	5.8%	0.63
NS	266	265	258	256	270	1.5%	1.28
NB	135	142	151	125	126	-6.7%	0.72
QC	3,512	3,699	3,816	3,963	4,028	14.7%	2.08
ON	5,961	6,229	6,302	6,871	7,224	21.2%	1.94
MN	311	296	293	270	267	-14.1	0.89
SK	238	251	231	284	253	6.3%	0.88
AB	966	971	992	1,038	1,094	13.3%	1.03
BC	1,067	1,070	1,011	1,053	1,007	-5.6%	0.88

Note: Canadian GERD figures include expenditures within the National Capital Region. Ontario and Quebec GERD figures exclude expenditures within the National Capital Region.
Source: Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 4.

Canada's ratio of GERD to GDP was 1.74 in 1994 and 1.69 in 1998, a decrease of 2.9%.[66] This decrease resulted from a substantial increase in Canada's GDP between 1994 and 1999. Overall, Canada's GERD to GDP ratio is the second lowest of the G-7 countries, with only Italy reporting a lower ratio (1.02 in 1998). The higher ratios of other countries may be due, in part, to the greater research and development expenditures on defense. Alberta's GERD to GDP ratio was 1.03 in 1998, well below the Canadian average of 1.69 and fourth overall behind Quebec, Ontario and Nova Scotia. This ranking is partly attributable to Alberta's higher productivity and higher GDP (see Introduction). In 1998, Alberta had the highest GDP per capita in the country.[67]

GERD to GDP Ratio, 1998



Source: Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 4.

[66] Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 2.
[67] Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 4.

Higher Education Expenditures on Research and Development

Higher education expenditures on research and development (HERD) are one component of overall GERD. Other performing sectors that contribute to GERD include provincial and federal governments, provincial research organizations, business enterprises, and private non-profit organizations. Nationally, between 1994 and 2000, higher education expenditures on research and development accounted for 26.7% of GERD.[68] Between 1994 and 1998, Alberta's higher education expenditures on research and development accounted for 33.8% of GERD.[69]

Between 1994 and 1998, Alberta's higher education expenditures on research and development increased from $308 million to $383 million, a rise of 24.4%. Comparable increases were 13.6% for Ontario, 7.1% for British Columbia and 8.8% for Canada overall. In 1998, Alberta had the third highest HERD within Canada, after Ontario and Quebec. The increase in Alberta's HERD between 1994 and 1998 outpaced the increase in GERD over the same period of time, indicating that Alberta's post-secondary institutions are playing an increasingly larger research and development role within the province.

Higher Education Expenditures on Research and Development, 1994 to 1998 (millions of dollars)

	1994	1995	1996	1997	1998	Total Change over Period
CDA	3,642	3,700	3,719	3,940	3,963	8.8%
NF	58	58	56	61	62	6.9%
PEI	4	4	4	5	7	75.0%
NS	113	117	118	124	133	17.7%
NB	53	56	56	57	61	15.1%
QC	1,136	1,108	1,095	1,163	1,124	-1.1%
ON	1,409	1,444	1,480	1,579	1,600	13.6%
MN	115	114	111	109	114	-0.9%
SK	108	114	114	119	121	12.0%
AB	308	328	330	359	383	24.4%
BC	336	358	354	362	360	7.1%

Source: Statistics Canada, *Estimates of Canadian Research and Development Expenditures (GERD), Canada, 1989 to 2000, and by Province 1989 to 1998*, Catalogue 88F0006XIE No. 1, pp. 12-33.

[68] Statistics Canada, *Science Statistics*, Catalogue 88-001-XIB, November 2000, p. 3.
[69] Statistics Canada, *Estimates of Canadian Research and Development Expenditures (GERD), Canada, 1989 to 2000, and by Province 1989 to 1998*, Catalogue 88F0006XIE No. 1, p. 31.

Key Points

- Total sponsored research revenue awarded to Alberta's universities increased 86.7% between 1994-95 and 1999-00. Total sponsored research revenue was approximately $300 million in 1999-00.
- A significant proportion of sponsored research revenue awarded to Alberta's universities came from provincial government sources. Alberta is unique in Canada in that it has provincial agencies such as AHFMR and AIF that provide sponsored research funding for medical and science and engineering research.
- At $87,665 in 1997-98, Alberta has the highest level of sponsored research revenue per full-time academic staff member in Canada. Growth between 1994-95 and 1997-98 was 50.7%.
- Since 1994-95, Alberta universities consistently have attained strong rankings in federal granting council awards, placing among the top half of peer institutions.
- Most sponsored research funding provided by the provincial and federal governments does not support the full costs of research. As a result, universities must support indirect costs out of general operating funds. This pressure reduces the level of funds available for instructional purposes and impedes the ability of universities to take on additional sponsored research projects.
- Alberta spent a total of $1,094 million on research and development in 1998, an increase of 13.3% over expenditures in 1994. Alberta now has the third highest level of research and development spending in Canada, behind Ontario and Quebec.
- Alberta's GDP to GERD ratio was 1.03 in 1998, the fourth highest in Canada. This ratio was significantly influenced by Alberta's strong productivity. In 1998, Alberta had the highest GDP per capita in Canada.
- Alberta spent a total of $383 million on higher education research and development in 1998, an increase of 24.4% over expenditures in 1994. Alberta now has the third highest level of higher education research and development spending in Canada, behind Ontario and Quebec.

Conclusion

This profile of Alberta's adult learning system draws together information from widely different sources for the period 1994-95 to 1999-00. The profile looks at Alberta's system relative to those in other jurisdictions in Canada and discusses emerging trends and issues. Together with the companion discussion paper *Alberta's Post-secondary Education System: Developing the Blueprint for Change*, this profile provides a context for discussing policy and program directions to help improve Alberta's post-secondary education system.

Appendix A – Summary Information

Key Point	Value	Explanation
Accessibility		
Current Credit Enrolment	119,574 FLEs	1999-00. 47% of enrolment at universities, 34% at colleges, 17% at technical institutes, 2% at private university colleges.
Non-Credit Activity	137,000	1999-00 student registrants at publicly-funded post-secondary institutions.
Private Vocational School Enrolment	15,000	1999-00 student headcount.
Community Programs Enrolment	138,000	1999-00 student participants.
Historical Credit Enrolment Growth	2.41%	Average credit enrolment growth between 1994-95 and 1999-00. Alberta's population growth was 1.81% over same period. Calgary institutions accounted for 45.4% of growth, Edmonton institutions 24.6%.
Credit Enrolment Projections	2.69% to 3.45%	Average anticipated enrolment increase between 2000-01 and 2004-05. Growth is expected to be moderate beyond projection period.
Growth in Working Age Population	19.7%	Projected growth in population age 25 to 64 between 2001-16. Canada 17%, Ontario 24.1%, B.C. 23.8%.
Job Growth	3.0%	Projected annual growth over next 10 years. It has been projected that 79% of new jobs will require post-secondary training.
Full-time University Participation	18.0%	Percent of population age 18-24 enrolled full-time at university, 1998-99. Canada overall 20.3%.
Full-time College Participation	19.1%	Percent of population age 18-21 enrolled full-time at college, 1998-99. Canada overall 24.7%.
Percentage of Undergraduate Students Enrolled Part-time	30%	Percent of Alberta undergraduate students age 20-24 enrolled part-time, 1998-99. 20% in 1988-89.
High School Completion Rate	80%	Average completion rate of population age 19-20 between 1995 and 1998.
Increase in Part-time University Enrolment	56.3%	Between 1994-95 and 1999-00. Canada overall decreased 9.9%.
Increase in Part-time College Enrolment	6.5%	Between 1994-95 and 1998-99. Canada overall increased 0.7%.
Increase in Full-time University Enrolment	9.2%	Between 1994-95 and 1999-00. Canada overall increased 2.1%.
Increase in Full-time College Enrolment	17.0%	Between 1994-95 and 1998-99. Canada overall increased 6.2%.
Participation by Socio-economic status	18%, 40%	Percentage of population aged 18-21 attending university by socioeconomic status; lowest quartile and highest quartile, respectively. 1994.
Aboriginal Educational Attainment	5%	Percentage of working age aboriginal population (age 25-64) with a university degree, 1996. Non-Aboriginals with a university degree 20%.
Aboriginal Population	6.1%	Percentage of Alberta population of Aboriginal ancestry, 1996. Canada overall 3.8%.
University Faculty Age 50 to 59	39%	Percentage of total university faculty, 1996-97. Canada overall 38%. Substantial retirement is expected within next 10 years.

Key Point	Value	Explanation
College Faculty Age 50 to 59	36%	Percentage of total college faculty, 1996-97. Canada overall 37%.
Adult Participation in Education and Training	29.7%	Percentage of adult population, 1997. Canada overall 26.3%.
Affordability		
Total Societal Spending per Student	$17,774	Total spending on full-time university and college students, 1997-98. Canada overall $17,402.
Total Spending per Capita	$878	Total spending on all full-time students. 1998-99. Canada overall $854. Alberta fourth highest of Canadian provinces.
Alberta Learning Grants	$773.1 M	Grants to publicly-funded post-secondary institutions for credit programs subject to the Tuition Fee Policy, 1999-00. Represents 61.1% of total net operating expenditures.
Student Contributions	$349.1 M	Revenue from tuition and other student fees, 1999-00. Represents 27.6% of total net operating expenditures.
Total Student Financial Assistance	$341.7 M	Total student financial assistance (loans, grants and scholarships) in 1999-00. $322.2 million for loans and grants; $19.5 million for scholarships.
Average Net Debt at Graduation	$17,942, $10,158	Average net debt for undergraduate and college/technical programs, respectively, 1999-00.
Responsiveness		
Growth in Number of Diplomas Granted	9.7%	Increase between 1994-95 and 1998-99. Canada overall increased 18.6%.
Growth in Number of Bachelor and First Professional Degrees Granted	7.2%	Increase between 1994-95 and 1998-99. Canada overall decreased 1.3%.
Growth in Number of Master's Degrees Granted	4.4%	Increase between 1994-95 and 1998-99. Canada overall increased 4.3%.
Growth in Number of Earned Doctorates Granted	5.7%	Increase between 1994-95 and 1998-99. Canada overall increased 11.9%.
Employment After Graduation	90.8%, 86.8%, 86.2%, 87.4%	Percentage of 1995 Alberta graduates working full-time 2 years after graduation; trade-vocational, college, undergraduate and graduate students, respectively. Canada overall, 85.8%, 83.6%, 82.2% and 87.5%, respectively.
Median Earnings After Graduation	$24,000, $25,500, $32,000, $46,500	Median earnings of 1995 Alberta graduates working full-time 2 years after graduation; trade-vocational, college, undergraduate and graduate students, respectively. Canada overall, $23,400, $25,700, $32,000 and $46,800, respectively.
Graduate Satisfaction With Overall Quality of Education	94 to 100%	1998-99. Colleges 97%, technical institutes 95%, vocational colleges 98%, universities 94%, private university colleges 100%.
Public Satisfaction That Graduates Are Prepared For Workforce	76%	1999-00. 69% in 1998-99, 75% in 1997-98.
Employer Satisfaction With Skills of Graduates	83% to 89%	1999. Satisfaction with certificate graduates 83%, diploma graduates 89%, and degree graduates 84%.
Private Vocational School Graduation Rate	80%	1998-99. 86% in 1997-98, 86% in 1996-97.
Private Vocational School Employment Rate	74%	1998-99. 86% in 1997-98, 71% in 1996-97.

Key Point	Value	Explanation
Research Excellence		
Total Sponsored Research Funding	$300 million	1999-00. Growth from 1994-95 was 86.7%.
Sponsored Research Revenue per Full-time Faculty Member	$87,665	1997-98. Canada overall $70,971.
Average Federal Granting Council Award per Full-time Faculty Member	$5,940, $3,933, $463	University of Alberta, University of Calgary and University of Lethbridge, respectively. Three year rolling averages for 1996-97 to 1998-99.
Ratio of Gross Domestic Expenditures on Research and Development to GDP	1.03%	1998. Canada overall 1.69%. Alberta has fourth highest ratio in Canada.
Higher Education Expenditures on Research and Development	$383 million	1998. Third highest expenditures in Canada. Growth from 1994 was 24.4%, Canada overall was 8.8%.

Appendix B – Tuition Fee Policy

Preamble

It is expected that students will make a direct financial contribution to the operating costs of their post-secondary education through fees. Fee revenues are to be used by the institutions to support student access and quality educational programs. Individual boards of governors will have the responsibility to determine fees for instruction within the guidelines of this policy.

Tuition Fee Policy

A. Statement of Principles

This policy is based on the following principles:

- All Albertans should have the opportunity to participate in post-secondary education, should their interest and ability lead them to do so.
- Both students and society should make a reasonable contribution to the costs of post-secondary education.
- Financial need should not be a barrier to participation in post-secondary education by qualified and motivated students.
- Fees should be reasonable and predictable to enable students and institutions to plan their finances.
- Institutions will be accountable to students for the level of fees set and the services provided.

B. Characteristics of the Policy

1. Definitions

(i) "Fees for instruction": Fees for credit programs identified as "tuition fees," "fees for instruction," or equivalent terms in institutional calendars, as well as any other board-approved, flat-rate charges incurred by students for services to facilitate credit instruction, and which are applied to all students at an institution (for example, computer lab, library, lab and material fees levied on all students would be included; student union fees, health service fees, and laboratory fees for specific courses would not).

(ii) "Revenues from fees for instruction": Total revenues from fees for instruction adjusted to exclude fee revenues from off-campus programs, contractual arrangements between an institution and an alternate funding source, and non-credit instruction.

(iii) "Net operating expenditures": Total operating expenditures reported in institutional audited financial statements adjusted to exclude items such as expenditures for programs offered off-campus and/or on contract between the institution and an alternate funding source, reserve transactions, and ancillary services.

(iv) "Off-campus": A site away from permanent campuses (which could include long-term leased facilities), where an institution delivers a course or program.

2. General Provisions

(i) Responsibility for fee levels: Subject to the ministerial requirements set out herein, the setting of all annual fees of each institution will be the responsibility of the individual boards of governors in consultation with students.

(ii) Coverage: Except as noted below, the tuition fee policy applies to fees for credit courses and programs offered by universities, public colleges and technical institutes established in the Province of Alberta, excluding The Banff Centre. The policy does not apply to off-campus courses/programs for which specific funding has not been provided by the province.

(iii) Reporting requirements: Boards are required, on an annual basis, to submit a three-year business plan which includes all annual fees charged to students. These three-year fee schedules will also be published in an institution's calendar.

(iv) Ministerial discretion: The Minister reserves the right to review and amend this policy and its application.

3. Specific Provisions

(i) Annual fee increases: The board of governors at each institution will be given the authority to set annual increases in fees for instruction within the following limits:

- The annual increase in fees for instruction at universities, public colleges and technical institutes compared to 1993-94 shall not exceed an average of $215.50 per full-time equivalent (FTE) student for 1994-95, excluding off-campus and contract FTE's.
- For 1995-96 and beyond, this limit shall be adjusted by the cumulative actual change in the Alberta consumer price index, 1994-95 being the base year.
- The boards will be required to establish a consulting mechanism with students to develop a three-year plan on all annual fees, including fees for instruction charged to students. These fees will be published in institutional calendars.

(ii) Fee revenue ceiling: For each institution, revenues from fees for instruction shall be less than 30 percent of its annual net operating expenditures to the year 2000 and shall not exceed 30 percent thereafter.

(iii) Program fee differential: It is expected that institutions will levy fees that are reflective of the relative cost of programs and the relative earning capability of program graduates. For example, fees for certain professional programs should be higher than for arts and science; similarly, colleges are expected to levy university transfer fees for instruction which reflect the relative benefits received by students compared to students in similar courses/programs at universities.

(iv) Visa student fee differential: Students who are not Canadian citizens or permanent residents of Canada shall pay a minimum surcharge of 100% of the applicable fee for instruction for domestic students. Any surcharge above the minimum will be at the discretion of each board of governors.

(v) Year of implementation: Policy provisions will become effective beginning with the 1995-96 academic year.

Appendix C - Glossary

Accreditation/Accredited
Alberta's Private Colleges Accreditation Board (PCAB) receives and reviews applications from private colleges wanting to offer bachelor degree programs. If the application is successful, the program is accredited. The Private Colleges Accreditation Board has authority to inquire into any matter that relates to the approval of programs of study (other than programs in divinity) that lead to a bachelor degree granted by a private college.

Applied Degree
Applied degree programs provide enhanced career preparation within a broad range of employment fields to prepare students for intermediate level positions. These programs are offered at public colleges and technical institutes and are four years in length. In general, the programs consist of six semesters of academic studies and at least two semesters of paid, related, supervised work experience in industry. Completion of a related diploma program is often a prerequisite for admission to an applied degree program.

Average/Mean
The average (or mean) is the total of values within a distribution divided by the number of values within that distribution.

Baby Boom
Individuals born between 1947 and 1966.

Bachelor Degree/Undergraduate Degree
Bachelor degree programs prepare students for a variety of outcomes including employment as well as entry into graduate and professional degree programs. Bachelor degree programs are offered at the four universities and five private university colleges. Alberta College of Art and Design also offers a four-year Bachelor of Fine Arts. The length of program varies by discipline and institution, but is normally four years in length. Programs longer than four years often incorporate a co-op or work study component.

Certificate
Certificate programs prepare students for entry into specific occupations. They involve one-year or less of full-time, hands-on study at a college, technical institute, private vocational school, and in some instances at a university. These programs require the completion of some high school studies for admission.

Community Consortia
Alberta's four community consortia offer credit programs in communities not directly served by a publicly-funded post-secondary institution. Consortia partner with publicly-funded post-secondary institutions and local communities to provide learning opportunities in disciplines of interest to the community.

Community Programs
Community programs provide non-credit learning opportunities through 84 community adult learning councils, 74 community literacy services and 15 agencies servicing immigrants. The community adult learning councils improve access to learning opportunities (especially for individuals with special needs or barriers to learning) whereas the literacy and immigrant agencies provide services that include immigrant settlement, English/French as a second language, and volunteer tutor adult literacy.

Credit
Credit programs are those approved by the Minister pursuant to legislation that can result in the conferment of a credential such as a certificate, diploma or other parchment that is signed and authorized by the Board of Governors of a post-secondary institution.

Diploma
Diploma programs prepare students for employment in a particular field or group of occupations. They involve two years of full-time, applied study at a college, technical institute, private vocational school, and in some instances at a university. They also require high school graduation, often with specified grades and subjects for admission.

Doctorate
Doctoral degree programs require two or three years of full-time university study and research beyond the masters level, including the preparation and defense of a dissertation on an approved topic. There are time limits for completing the degree requirements. Doctoral degree programs require students to plan and carry out high quality research leading to advanced knowledge in the student's major field of study. The majority of the province's doctoral programs are available at the University of Alberta and the University of Calgary. The University of Lethbridge offers a doctoral program within the Faculty of Arts and Science but only in limited research areas where there is faculty expertise.

Echo Boom
Individuals born between 1980 and 1995 (children of the baby boom age cohort).

Fertility Rate
The number of live births per 1,000 women aged 15 to 49.

First Professional Degree
First professional degrees are all professional degrees that are neither bachelor nor master's degrees. Program examples include medicine, dentistry, law and veterinary medicine.

Full Load Equivalent (FLE)
A full load equivalent student represents one student for a standard year of study taking what is considered to be a full load in a specific program.

Gross Domestic Product
Gross Domestic Product is a measurement of the unduplicated value of production originating within a defined geographic boundary, regardless of whether the factors of production are resident or non-resident.

International Migration
International migration (immigration) is the movement of people across an international border for the purpose of establishing a new permanent residence. Net international migration is the number of immigrants less the number of emigrants.

Inter-provincial Migration
Inter-provincial migration is the movement of people across a provincial border for the purpose of establishing a new permanent residence. Net inter-provincial migration is the number of immigrants less the number of emigrants.

Licensing/Licensed
Licensing is the approval process for programs that fall under the *Private Vocational Schools Act*.

Master's Degree
Master's degree programs prepare students for employment as well as entry into doctoral degree programs. Master's degree programs are only offered at the four universities and generally involve a minimum of two years of full-time study. There are time limits for completing the degree requirements. These programs require a completed bachelor degree for admission. Applicants who have a three-year undergraduate (bachelor) degree are generally required to complete an additional qualifying year. Master's degree programs are either course-based or thesis-based (requiring the production and defense of a thesis document).

Median
The median is the value that divides a distribution in half. It is that value where one half of the values are less than or equal to the median and one half of the values are greater than or equal to the median.

Natural Increase
The surplus (or deficit) of births over deaths in a population.

Net Operating Expenditures
Total operating expenditures reported in institutional audited financial statements adjusted to exclude items such as expenditures for programs offered off-campus and/or on contract between the institution and an alternate funding source, reserve transactions, and ancillary services.

Non-credit
Historically, non-credit programs are considered to be programs that are delivered outside the normal delivery period (such as evening courses through continuing education departments), programs that are short in duration, and programs that are offered for personal interest. Recently, these distinctions have become less applicable.

Post-secondary
The post-secondary system refers to Alberta's adult learning system excluding community programs.

Private Providers
Private providers include private colleges operating on a not-for-profit basis and businesses providing learning as a service for-profit. Specifically, there are six private university colleges (not-for-profit), one non-resident degree-granting institution (for-profit), numerous private colleges (such as theological and native colleges, not-for-profit), over 150 licensed private vocational schools (for-profit), and numerous private providers delivering community programs (not-for-profit). These providers do not (in general) receive direct funding from Alberta Learning (see publicly-funded post-secondary institutions).

Providers
Alberta's adult learning opportunities are facilitated through providers. These providers can be public (universities, colleges, technical institutes, community consortia), private (private university colleges, unregulated private colleges), and community based (community adult learning councils).

Publicly-funded Post-secondary Institutions
Publicly-funded post-secondary institutions include the 23 public institutions and the four private university colleges that receive direct operating funds from Alberta Learning for select programs.

Public Providers
Public providers include the 23 public institutions and four community consortia. These providers receive direct operating funds from Alberta Learning.

Skills Development
Skills development programs provide learning opportunities to unemployed and unskilled adults who are not Employment Insurance clients. Program participants can pursue learning opportunities in academic upgrading (Grades 10-12), adult basic education (Grades 7-9), literacy and numeracy, English as Second Language, and university/college entrance preparation.

Socio-economic Status
Socio-economic status refers to an individual's or a family's relative position in society. In social research, it is operationally defined using variables such as educational attainment, occupation, income, or a combination thereof.

Trades/Apprenticeship Programs
Trade/apprenticeship programs are available in 51 designated trades within Alberta. Registered apprentices complete a specified number of hours of on-the-job training in addition to periods of technical training followed by examinations. The technical training component is generally taken at a public college or technical institute.